152

CDP-XA7ES

SERVICE MANUAL

US Model
Canadian Model
AEP Model

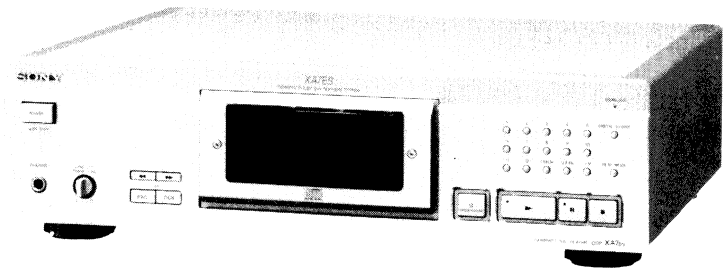


Photo : Gold

Model Name Using Similar Mechanism	NEW
CD Mechanism Type	CDM32HB-12H (BLACK) CDM32HN-12H (GOLD)
Base Unit Type	BU-12H
Optical Pick-up Type	KSS-273A

SPECIFICATIONS

Compact disc player

Laser	Semiconductor laser
Wavelength	780 – 790 nm
Frequency response	2 Hz to 20 kHz ± 0.3 dB
Dynamic range	More than 100 dB
Harmonic distortion	Less than 0.0015%

Outputs

	Jack type	Maximum output level	Load impedance
LINE OUT (FIXED)	Phono jacks	2 V (at 50 kilohms)	Over 10 kilohms
LINE OUT (VARIABLE)	Phono jacks	2 V (at 50 kilohms)	Over 50 kilohms
BALANCED OUT	XLR-3-32	2V (at 50 kilohms)	600 ohms
DIGITAL OUT (OPTICAL)	Optical output connector	–18 dBm	Wave length: 660 nm
DIGITAL OUT (COAXIAL)	Coaxial output connector	0.5Vp-p (75 ohms)	75 ohms
PHONES	Stereo phone jack	100 mW	32 ohms

General

Power requirements

Where purchased	Power requirements
AEP, German	220 V – 230 V AC, 50/60 Hz
US and Canadian	120 V AC, 60 Hz
Power consumption	28 W
Dimensions (approx.) (w/h/d)	430 × 125 × 375 mm (17 × 5 × 14 7/8 in.) incl. projecting parts
Mass (approx.)	15.0 kg (33 lbs 1 oz)

Supplied accessories

Audio cord (2 phono plugs – 2 phono plugs) (1)
Remote commander (remote) (1)
Sony SUM-3 (NS) batteries (2)
Stabilizer (1)

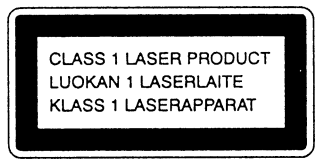
Design and specifications are subject to change without notice.

MICROFILM

COMPACT DISC PLAYER

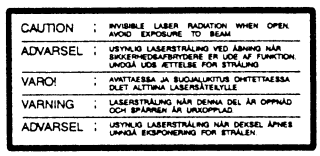
SONY

152



This appliance is classified as a CLASS 1 LASER product.
The CLASS 1 LASER PRODUCT MARKING is located on the rear exterior.

The following caution label is located inside the unit.


CAUTION : INVISIBLE LASER RADIATION WHEN OPEN. AVOID EXPOSURE TO BEAM
ADVARSEL : USYNLIG LASERSTRÅLING VED ÅBNING NÅR SIKKERHEDSAFBRYDERE ER UDE AF FUNKTION. UNDGÅ UDSÆTTELSE FOR STRÅLING
VARO! : AVATTAESSA JA SUOJALUKITUS OHITETTAESSA OLET ALTTIINA LASERSÄTEILYLLE
VARNING : LASERSTRÅLNING NÄR DENNA DEL ÄR ÖPPNAD OCH SPÄRREN ÄR URKOPPLAD
ADVARSEL : USYNLIG LASERSTRÅLING NÅR DEKSEL ÅPNES UNNGÅ EKSPONERING FOR STRÅLEN

CAUTION

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

Notes on chip component replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

Flexible Circuit Board Repairing

- Keep the temperature of the soldering iron around 270 °C during repairing.
- Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
- Be careful not to apply force on the conductor when soldering or unsoldering.

SAFETY-RELATED COMPONENT WARNING !!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

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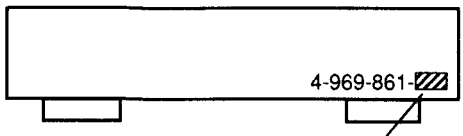
ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!!

LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE ⚠ SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

MODEL IDENTIFICATION

— BACK PANEL —



US Model	: 1□ (U)
Canadian Model	: 2□ (CA)
AEP Model	: 3□ (CED)
German Model	: 4□ (CEE)

SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety checks before releasing the set to the customer:
Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

LEAKAGE

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microampers). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.

2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.

3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2V AC range are suitable. (See Fig. A)

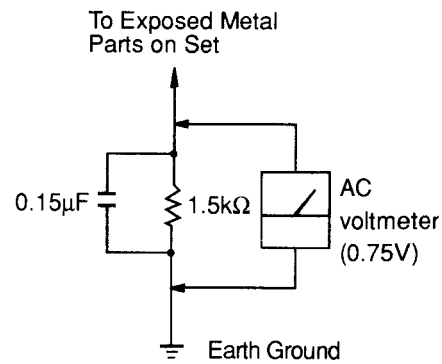


Fig. A. Using an AC voltmeter to check AC leakage.

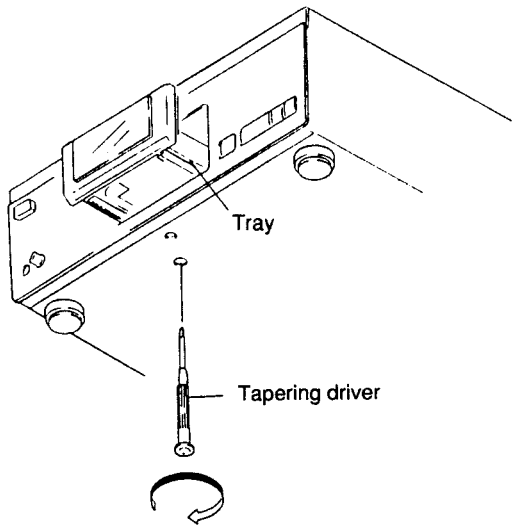
SECTION 1

SERVICING NOTE

HOW TO OPEN THE DISC TRAY WHEN POWER SWITCH TURNS OFF

Insert a tapering driver into the aperture of the unit bottom, and turn in the direction of arrow (to OUT direction).

* To close the disc tray, turn the driver in the reverse direction (to IN direction).



NOTES ON HANDLING THE OPTICAL PICK-UP BLOCK OR BASE UNIT

The laser diode in the optical pick-up block may suffer electrostatic break-down because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body.
During repair, pay attention to electrostatic break-down and also use the procedure in the printed matter which is included in the repain parts.
The flexible board is easily damaged and should be handled with care.

NOTES ON LASER DIODE EMISSION CHECK

The laser beam on this model is concentrated so as to be focused on the disc reflective surface by the objective lens in the optical pick-up block. Therefore, when checking the laser diode emission, observe from more than 30 cm away from the objective lens.

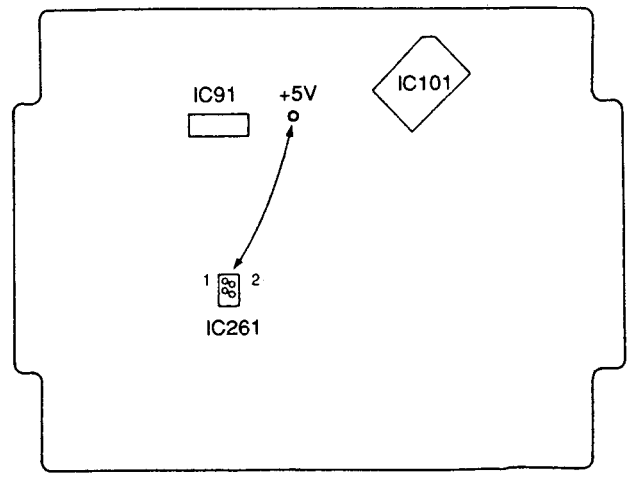
LASER DIODE AND FOCUS SEARCH OPERATION CHECK

Carry out the "S curve check" in "CD section adjustment" and check that the S curve waveform is output three times.

PREPARATION FOR ADJUSTMENT AND MESUREMENT

Perform connecting the IC261 ② pin of SERVO board to the line of +5V because this unit does not work without the stabilizer structurally.

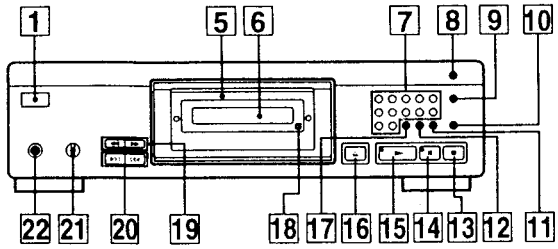
SERVO BOARD — Conductor side —



SECTION 2
GENERAL

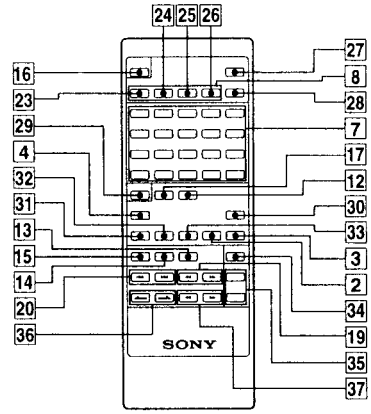
Identifying the Parts

Front Panel



1 Power switch
2 Time button
3 ERASE button
4 FILE button
5 Disc tray
6 Display window
7 Numeric buttons
8 DIGITAL OUT indicator
9 DIGITAL OUTPUT button
10 PLAY MODE buttons
11 >12 (over 12) button
12 CLEAR button
13 ■ (stop) button
14 II (pause) button
15 ► (play) button
16 ▲ OPEN/CLOSE button
17 CHECK button
18 Remote sensor
19 ◄◄/►► (manual search) buttons

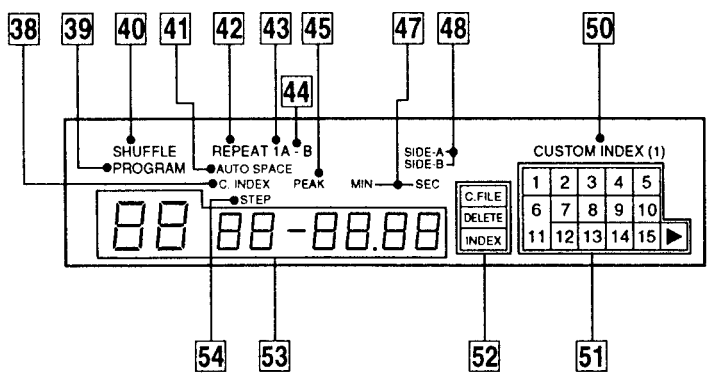
Remote Commander (RM-D921)



20 I◄◄/►►I AMS* buttons
21 LINE OUT/PHONE LEVEL control
22 PHONES jack
23 CONTINUE button
24 SHUFFLE button
25 PROGRAM button
26 C. INDEX button
27 DISPLAY MODE button
28 MUSIC SCAN button
29 >20 (over 20) button
30 PEAK SEARCH button
31 REPEAT (repeat/A-B repeat clear) button
32 A ↔ B repeat button
33 AUTO SPACE button
34 FADER (fade in/fade out) button
35 LINE OUT LEVEL (line out/headphone level) buttons
36 ← → INDEX buttons
37 ◄◄ ►► SLOW (low speed manual search) buttons

* AMS is the abbreviation of Automatic Music Sensor.

Display Window

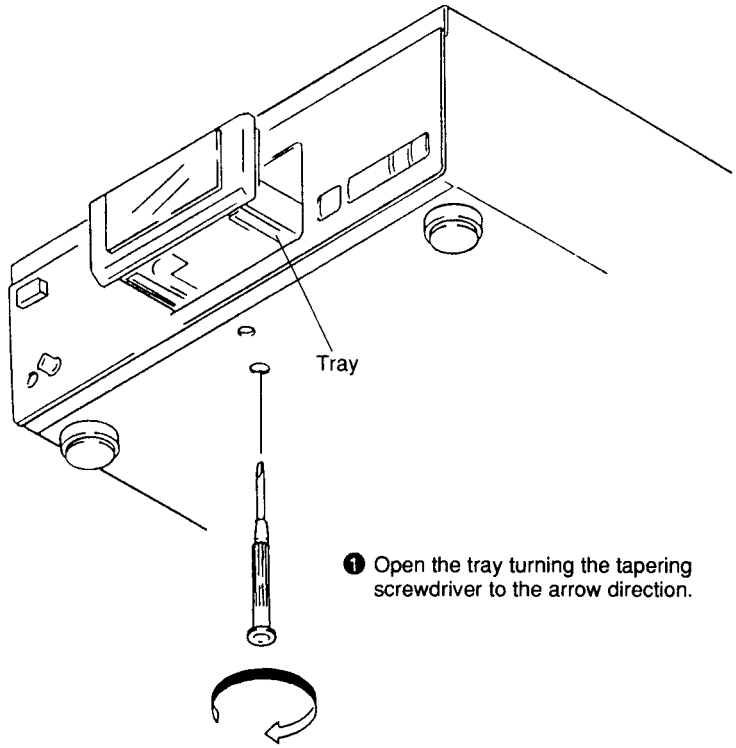


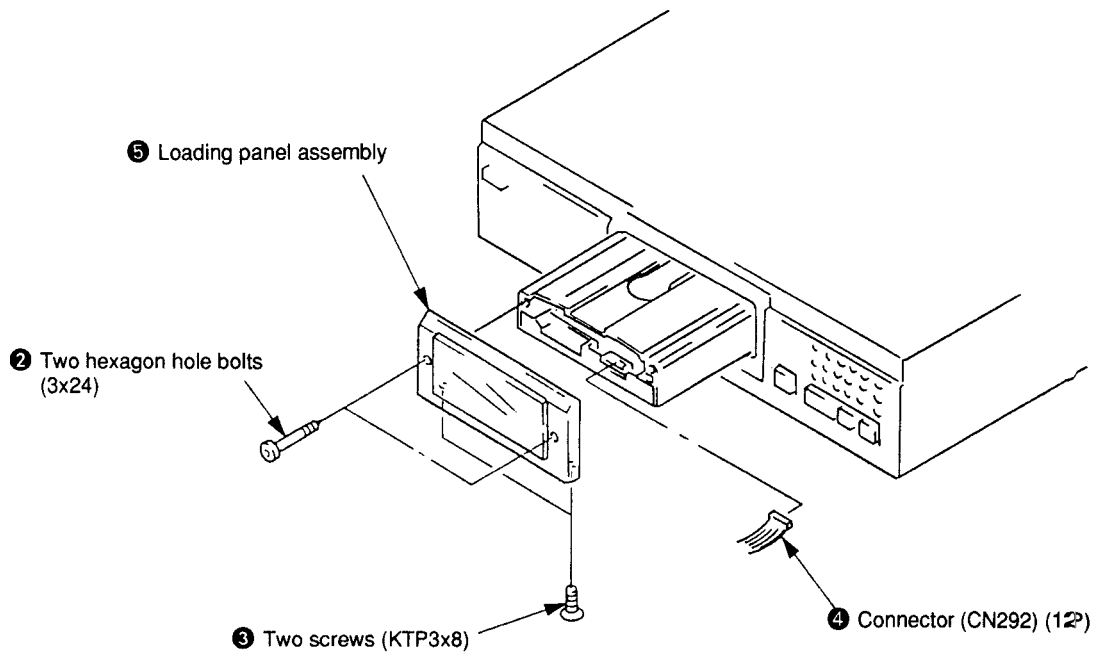
38 C. INDEX
39 PROGRAM
40 SHUFFLE
41 AUTO SPACE
42 REPEAT
43 REPEAT 1
44 REPEAT A-B
45 PEAK
47 MIN/SEC
48 SIDE A/SIDE B
50 CUSTOM INDEX (1)
51 1 ~ 15 ►
52 C FILE/DELETE/INDEX
53 DISPLAY
54 STEP

SECTION 3
DISASSEMBLY

Note : Follow the disassembly procedure in the numerical order given.

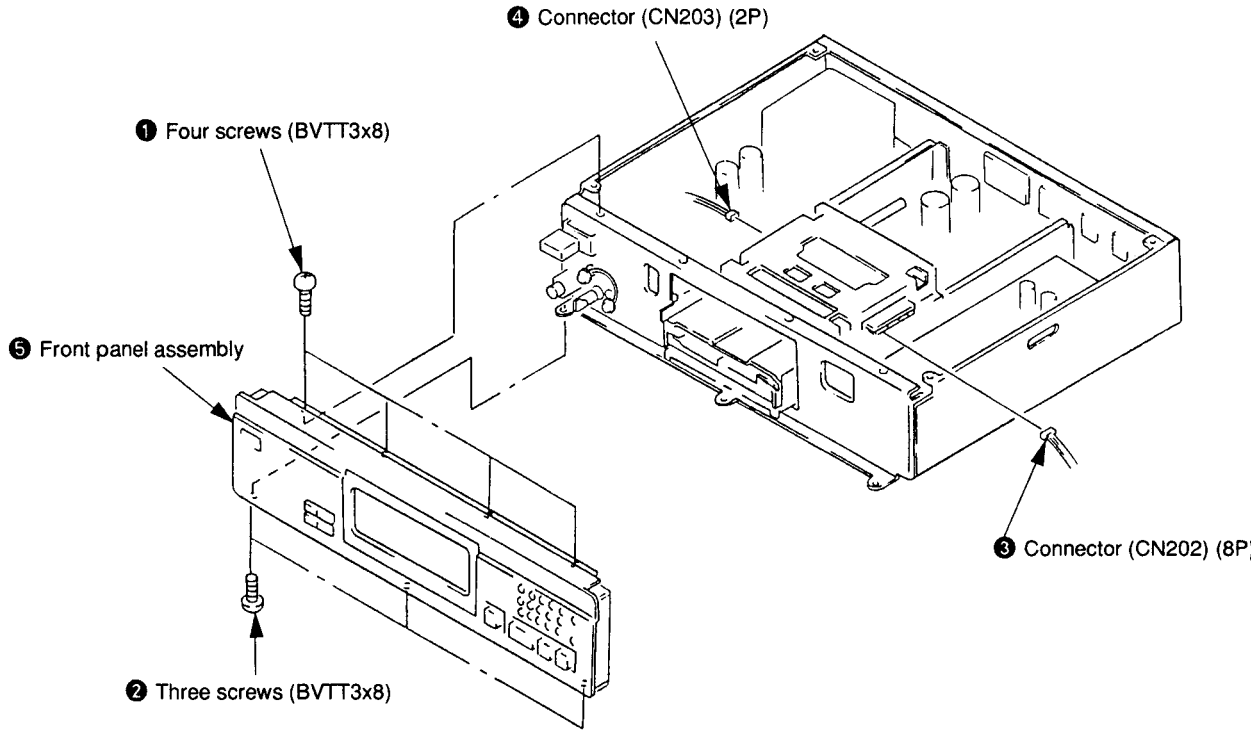
3-1. LOADING PANEL



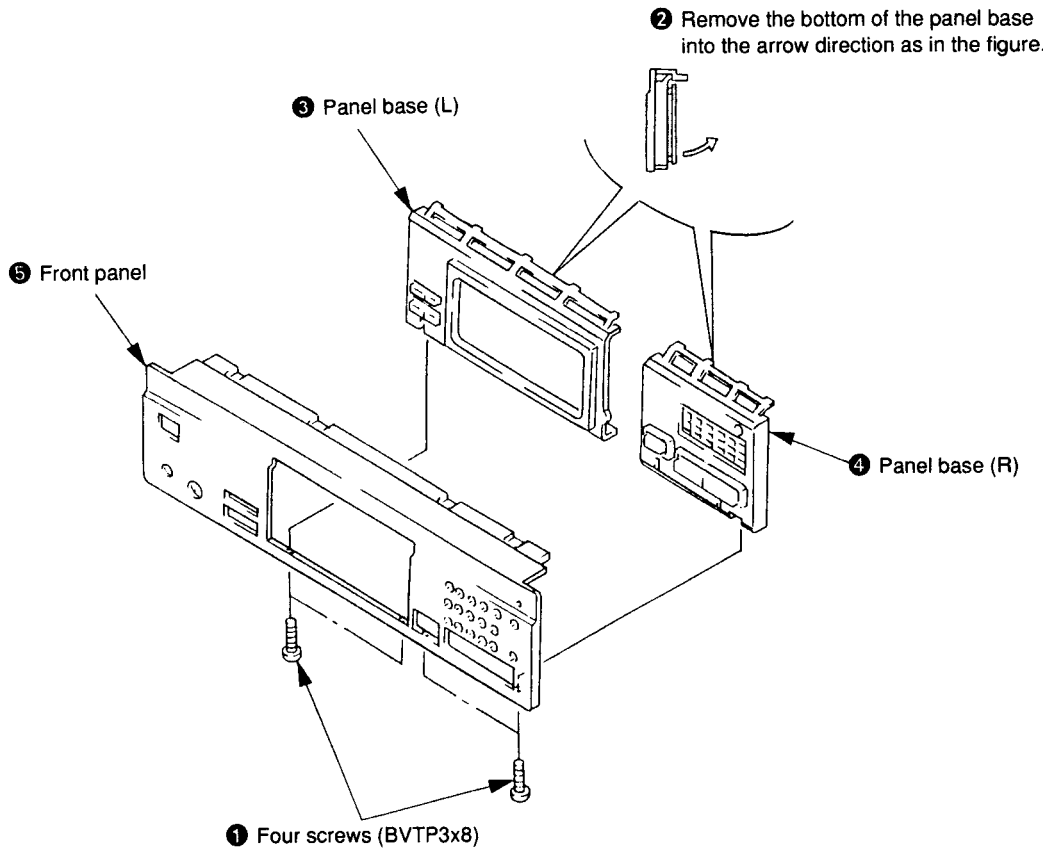


Note : Install in order ❸ right ➡ ❸ left ➡ two of ❷.

3-2. FRONT PANEL ASSEMBLY



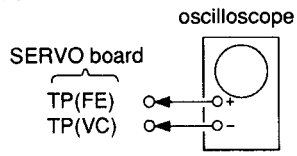
3-3. PANEL BASE (L), (R)


❷ Remove the bottom of the panel base into the arrow direction as in the figure.
❸ Panel base (L)
❺ Front panel
❹ Panel base (R)
❶ Four screws (BVTP3x8)

SECTION 4
ELECTRICAL BLOCK ADJUSTMENT

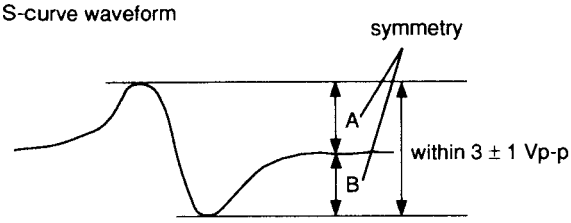
Note :
1. CD Block basically constructed to operate without adjustment. Therefore, check each item in order given.
2. Use YEDS-18 disc (3-702-101-01) unless otherwise indicated.
3. Use an oscilloscope with more than 10MΩ impedance.
4. Clean an object lens by an applicator with neutral detergent when the signal level is low than specified value with the following checks.

S Curve Check



Procedure :
1. Connect oscilloscope to test point TP (FE).
2. Connect between test point TP (FEI : IC101 ㉙ pin) and TP (VC) by lead wire.
3. Turned Power switch on.
4. Put disc (YEDS-18) in and turned Power switch on again and actuate the focus search. (actuate the focus search when disc table is moving in and out.)
5. Check the oscilloscope waveform (S-curve) is symmetrical between A and B. And confirm peak to peak level within 3±1 Vp-p.

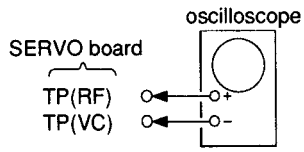
S-curve waveform



6. After check, remove the lead wire connected in step 2.

Note : • Try to measure several times to make sure that the ratio of A : B or B : A is more than 10 : 7.
• Take sweep time as long as possible and light up the brightness to obtain best waveform.

RF Level Check

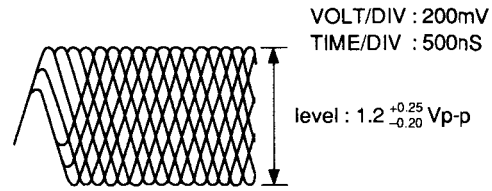


Procedure :
1. Connect oscilloscope to test point TP (RF).
2. Turned Power switch on.
3. Put disc (YEDS-18) in and playback.
4. Confirm that oscilloscope waveform is clear and check RF signal level is correct or not.

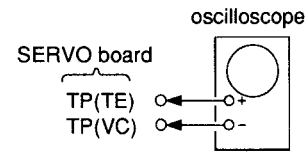
Note :

Clear RF signal waveform means that the shape "◊" can be clearly distinguished at the center of the waveform.

RF signal waveform

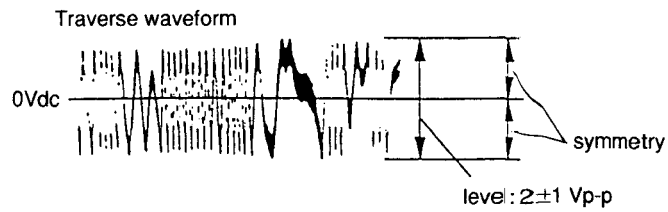


E-F Balance (Traverse) Check



Procedure :
1. Connect test point TP (ADJ) to ground and TP(TEI : IC101 ㉗ pin) to TP (VC) with a lead wire.
2. Connect oscilloscpe to test point TP (TE).
3. Turned Power switch on.
4. Put disc (YEDS-18) in and playback.
5. Confirm that the oscilloscope waveform is symmetrical on the top and bottom in relation to 0V dc, and check this level.

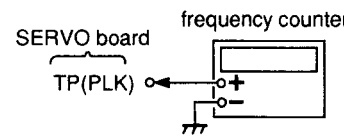
Traverse waveform



6. Remove the lead wire connected in step 1.

RF PLL Free-run Frequency Check

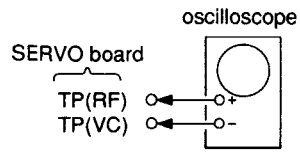
Procedure :
1. Connect frequency counter to test point (PLK) with lead wire.



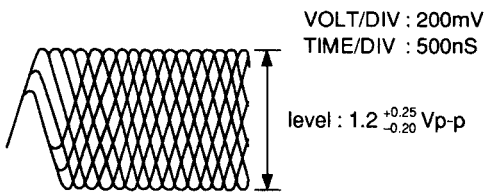
2. Turned Power switch on.
3. Confirm that reading on frequency counter is 4.3218MHz.

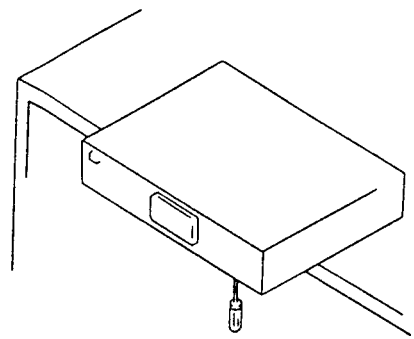
Skew Adjustment

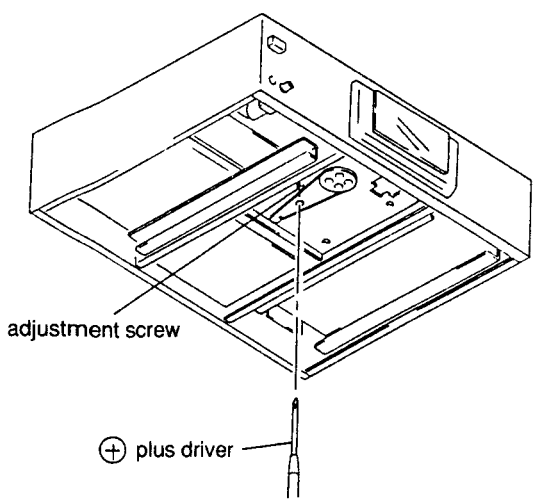
Do not perform the skew adjustment when not using attached stabilizer to a set.



RF signal waveform







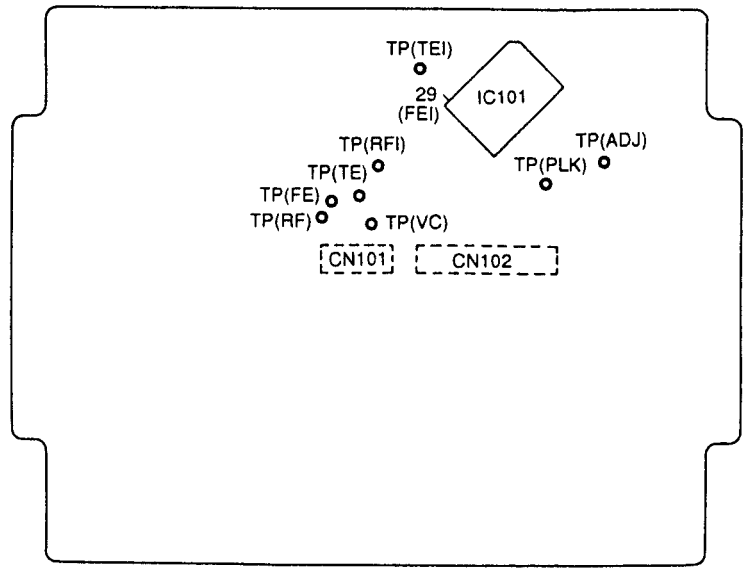
1. Remove the bottom board, put one third of the unit out from the desk.
2. Connect oscilloscope to test point TP (RF).
3. Turn Power switch on.
4. Put disc (YEDS-18) in and playback.
5. Adjust to be clear the waveform of the oscilloscope turning the adjustment screw with a ⊕ screwdriver.

Note :

A clear RF signal waveform means that the shape "◊" can be clearly distinguished at the center of the waveform.

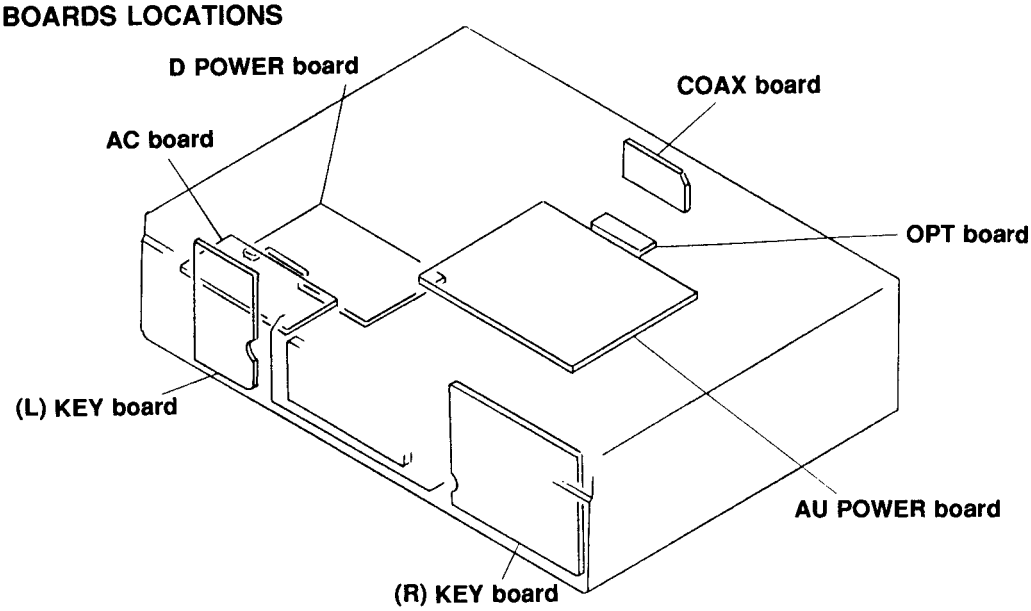
6. After the adjustment, lock the adjustment screw.

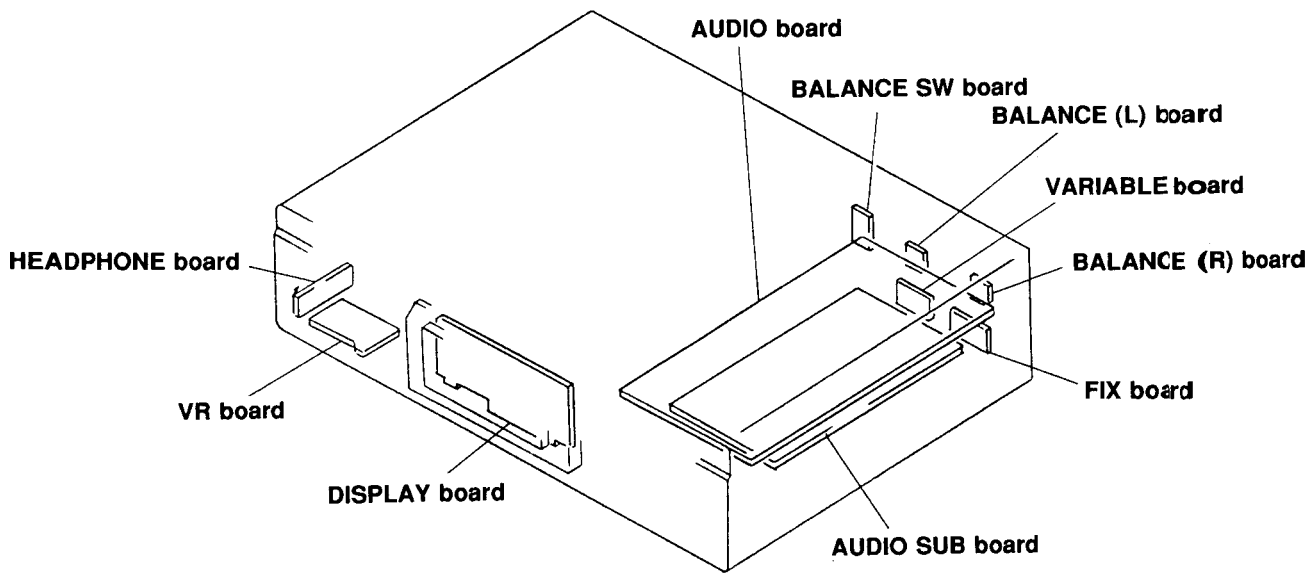
[SERVO BOARD] — Conductor side —

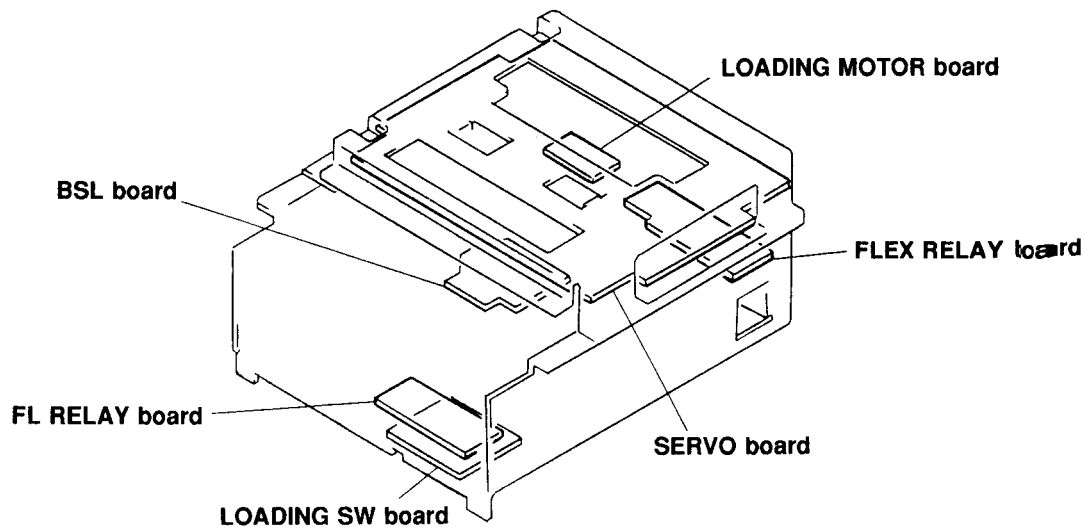


SECTION 5
DIAGRAMS

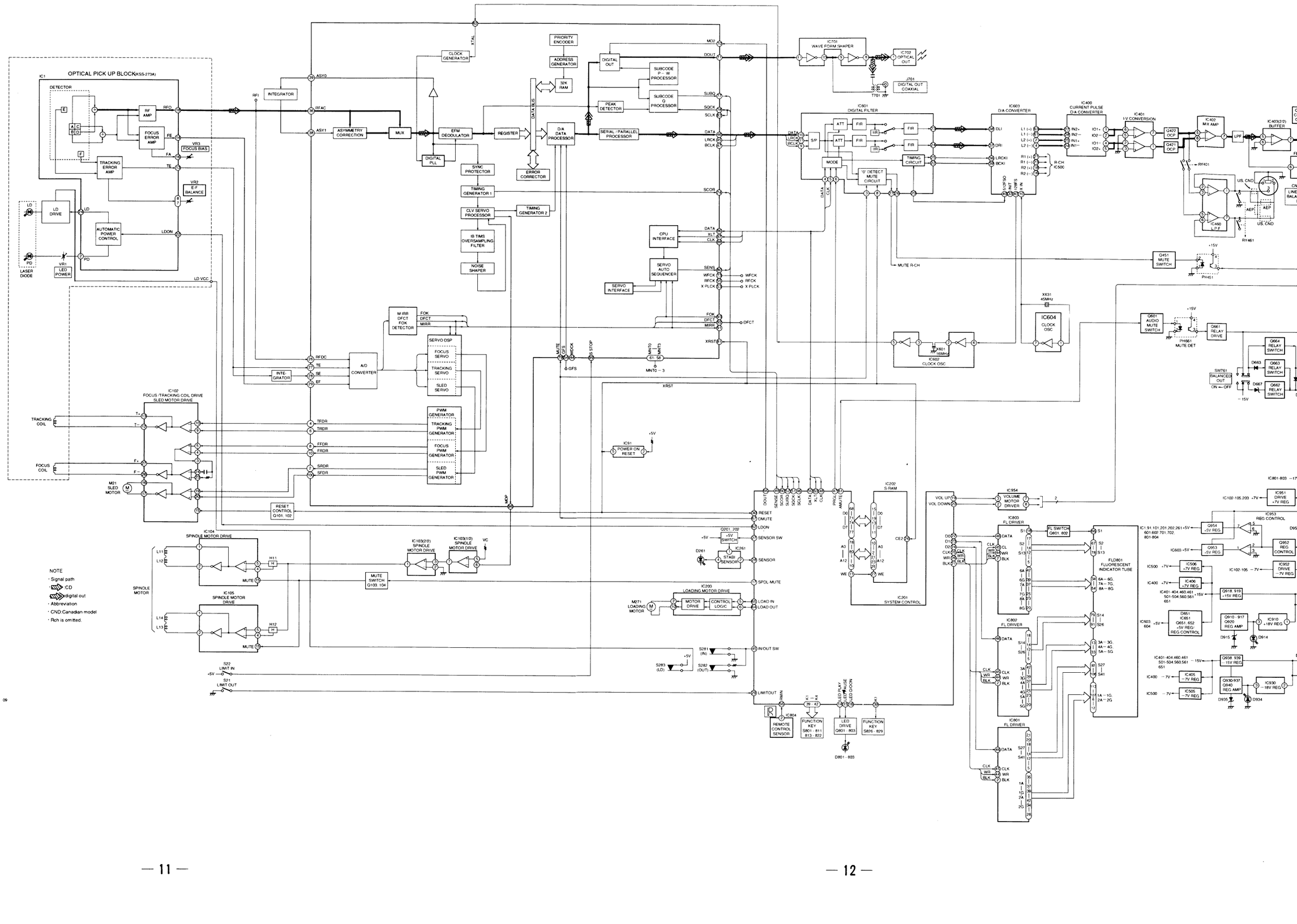
5-1. CIRCUIT BOARDS LOCATIONS

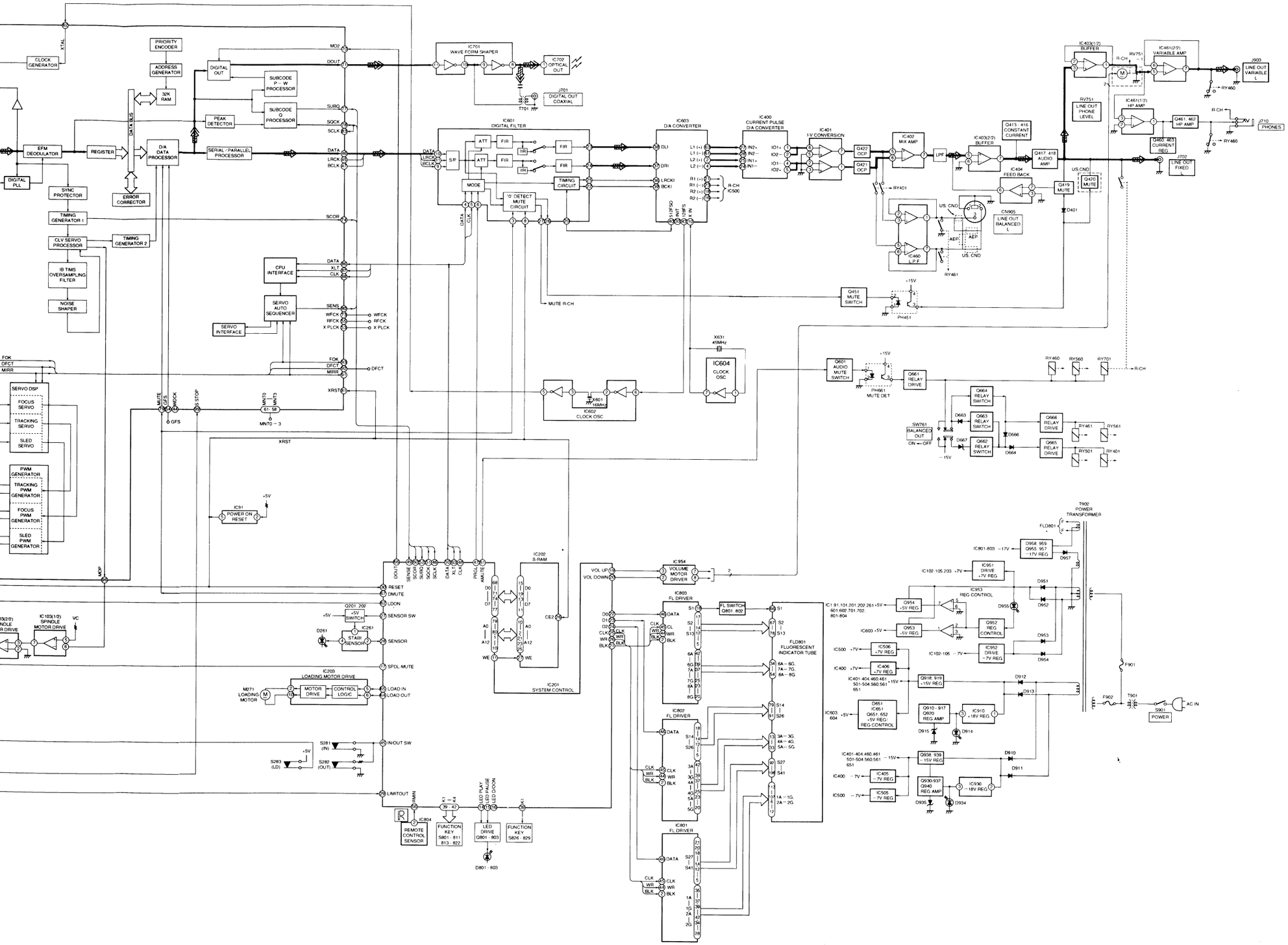






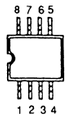
5-2. BLOCK DIAGRAM




CLOCK GENERATOR
XTAL
PRIORITY ENCODER
ADDRESS GENERATOR
32K RAM
DATA BUS
DIGITAL OUT
SUBCODE P – W PROCESSOR
SUBCODE Q PROCESSOR
PEAK DETECTOR
SERIAL / PARALLEL PROCESSOR
EFM DECODULATOR
REGISTER
D/A DATA PROCESSOR
ERROR CORRECTOR
DIGITAL PLL
SYNC PROTECTOR
TIMING GENERATOR 1
TIMING GENERATOR 2
CLV SERVO PROCESSOR
IB TIMS OVERSAMPLING FILTER
NOISE SHAPER
CPU INTERFACE
SERVO AUTO SEQUENCER
SERVO INTERFACE
SERVO DSP
FOCUS SERVO
TRACKING SERVO
SLED SERVO
PWM GENERATOR
TRACKING PWM GENERATOR
FOCUS PWM GENERATOR
SLED PWM GENERATOR
IC91 POWER ON RESET
IC701 WAVE FORM SHAPER
IC702 OPTICAL OUT
J701 DIGITAL OUT COAXIAL
T701
IC601 DIGITAL FILTER
IC603 D/A CONVERTER
R-CH IC500
IC400 CURRENT PULSE D/A CONVERTER
IC401 I-V CONVERSION
IC402 MIX AMP
LPF
IC403(1/2) BUFFER
IC404 FEED BACK
Q413 - 416 CONSTANT CURRENT
Q417, 418 AUDIO AMP
Q419 MUTE
Q420 MUTE
US. CND
CN905 LINE OUT BALANCED L
IC461(2/2) VARIABLE AMP
IC461(1/2) HP AMP
RV751 LINE OUT PHONE LEVEL
Q460, 462 HP AMP
Q459, 461 CURRENT REG
J702 LINE OUT FIXED L
J903 LINE OUT VARIABLE L
J710 PHONES
RY460
RY751
R-CH
IC460 P.E
RY401
RY461
Q451 MUTE SWITCH
PH451
MUTE R-CH
X631 45MHz
IC604 CLOCK OSC
X601 16MHz
IC602 CLOCK OSC
Q601 AUDIO MUTE SWITCH
PH661 MUTE DET
Q661 RELAY DRIVE
Q664 RELAY SWITCH
Q663 RELAY SWITCH
Q662 RELAY SWITCH
Q666 RELAY DRIVE
Q665 RELAY DRIVE
SW761 BALANCED OUT ON – OFF
D663
D667
D666
D664
RY460
RY560
RY701
RY461
RY561
RY501
RY401
T902 POWER TRANSFORMER
FLD801
IC801-803 –17V
D958, 959 D955, 957 –17V REG
D957
IC951 DRIVE +7V REG
IC102-105, 203 +7V
D951
D952
IC953 REG CONTROL
D955
Q954 +5V REG
Q953 –5V REG
Q952 REG CONTROL
IC952 DRIVE –7V REG
IC102-105 – 7V
D953
D954
IC603 +5V
IC500 +7V
IC506 +7V REG
IC406 +7V REG
IC400 +7V
IC401-404, 460, 461 501-504, 560, 561 651
Q918, 919 +15V REG
D912
D913
IC903 604 +5V
D651 IC651 Q651, 652 +5V REG/ –5V REG CONTROL
Q910 - 917 Q920 REG AMP
IC910 +18V REG
D915
D914
IC401-404, 460, 461 501-504, 560, 561 651 – 15V
Q938, 939 – 15V REG
D910
D911
IC400 – 7V
IC405 –7V REG
Q930-937 Q940 REG AMP
IC930 –18V REG
IC500 – 7V
IC505 –7V REG
D935
D934
F901
F902
T901
S901 POWER
AC IN
IC954 VOLUME MOTOR DRIVER
VOL UP
VOL DOWN
IC803 FL DRIVER
IC802 FL DRIVER
IC801 FL DRIVER
FL SWITCH Q801 802
FLD801 FLUORESCENT INDICATOR TUBE
IC202 S-RAM
IC201 SYSTEM CONTROL
IC103(1/2) SPINDLE MOTOR DRIVE
VC
Q201, 202 +5V SWITCH
D261
IC261 STAB SENSOR
SENSOR
IC203 LOADING MOTOR DRIVE
M271 LOADING MOTOR
MOTOR DRIVE
CONTROL LOGIC
LOAD IN
LOAD OUT
S281 (IN)
S282 (OUT)
S283 (LD)
IN-OUT SW
LIMIT-OUT
IC804 REMOTE CONTROL SENSOR
FUNCTION KEY S801 - 811 813 - 822
LED DRIVE Q801 - 803
FUNCTION KEY S806 - 829
D801 - 803
RESET
DMUTE
LDON
SENSOR SW
SPDL MUTE
MD2
DOUT
SUBQ
SQCK
SCLK
DATA
LRCK
BCLK
SCOR
XLT
CLK
SENS
WFCK
RFCK
X PLCK
FOK
DFCT
MIRR
XRST
MUTE
GFS
MCK
S STOP
MNT0
MNT3
MNT0 – 3
WFCK
RFCK
X PLCK
DFCT
+5V
+15V
–15V

5-3. SEMICONDUCTOR LEAD LAYOUTS

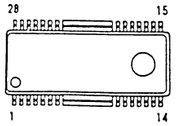
AD712JR-REEL
NJM4580E-D
TC7WU04F
μPC4558G2



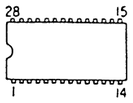
(TOP VIEW)

BA6208

BA6297AFP

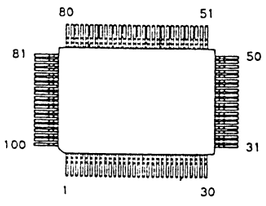


CXA8042S

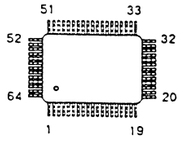


(TOP VIEW)

CXD2515Q

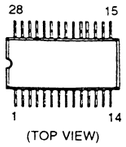


CXD2562Q



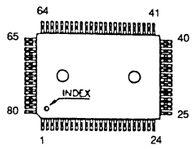
TOP VIEW

CXD8504M
LH5160TG

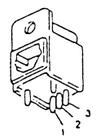


(TOP VIEW)

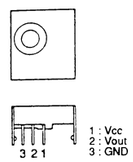
CXP84124-025Q



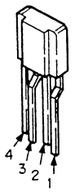
GP-1F31T



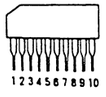
GP1U90XB



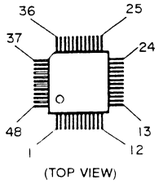
IS471F



LB1641

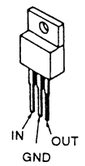


LC7570E



(TOP VIEW)

M5F7807L
M5F7818L
M5F7907L
M5F7918L

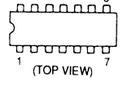


M51957AL

NJM2114D
NJM4580D-D
OPA27GP

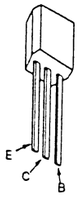
(TOP VIEW)

SN74HCU04AN

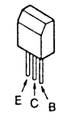


(TOP VIEW)

DTA144ES
DTC114ES
DTC144ES



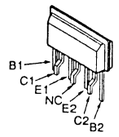
2SB734-34



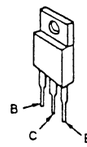
DTA114EK
DTA144EK
DTC144EK
DTC114EK
RN1404
RN2401
2SC2712-YG
2SC3395

2SA1083E

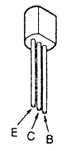
2SA1349-GRBL
2SC3381



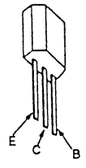
2SA1606-E
2SA985A-QP
2SC2275A-QP
2SC3514
2SC4159-E



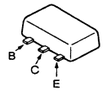
2SC2545



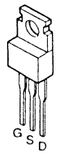
2SC2878-AB



2SD1623-S



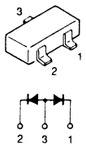
2SJ76
2SK213



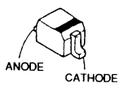
2SK208GR3

2SK246-GR
2SK246-Y

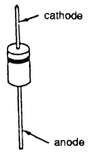
DAP202K



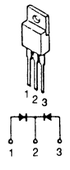
DTZ4.7C



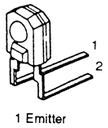
ERB83-004
10E2
1N4148M



F10P10Q

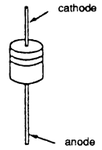


GL480

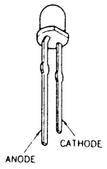


1 Emitter
2 Collector

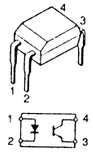
HZS12A2L
LTZ-MR19
RD4.7JS-B2
RD5.1JS-B2
RD5.6JS-B1
RD18JS-T2B1
11EQS04



MAA3371X
MBG3371X



PC817

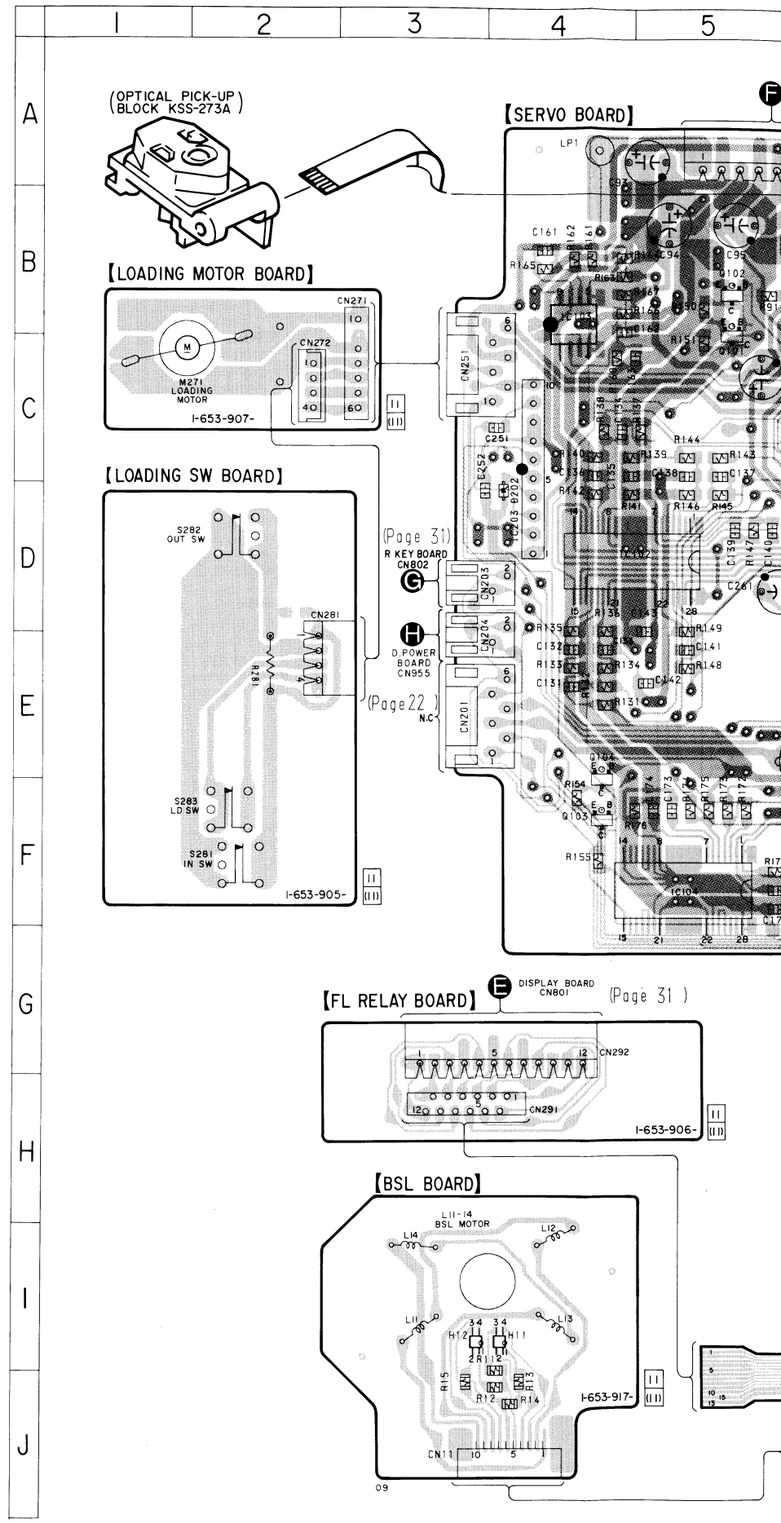


5-4. PRINTED WIRING BOARD — SERVO SECTION —

• See page 10 for Circuit Boards Location.

• **Semiconductor Location**

Ref. No.	Location
D201	E-6
D202	D-4
D261	E-8
H11	I-4
H12	I-3
IC91	B-6
IC101	B-8
IC102	D-4
IC103	B-4
IC104	F-5
IC105	F-6
IC201	F-9
IC202	F-7
IC203	C-4
IC261	D-6
Q101	C-5
Q102	B-5
Q103	F-4
Q104	E-4
Q201	E-7
Q202	E-7



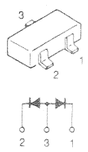
Note:

- ——o——: parts extracted from the component side.
- ——: parts extracted from the conductor side.
- ○ : Through hole.
- : Pattern from the side which enable seeing.
- : Pattern of the rear side.

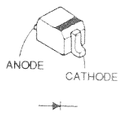
2SK208GR3

2SK246-GR
2SK246-Y

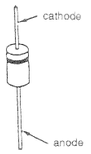
DAP202K



DTZ4.7C

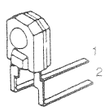


ERB83-004
10E2
1N4148M



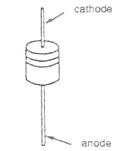
F10P10Q

GL480

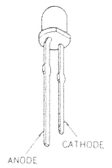


1 Emitter
2 Collector

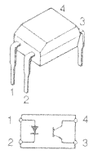
HZS12A2L
LTZ-MR19
RD4.7JS-B2
RD5.1JS-B2
RD5.6JS-B1
RD18JS-T2B1
11EQS04



MAA3371X
MBG3371X



PC817

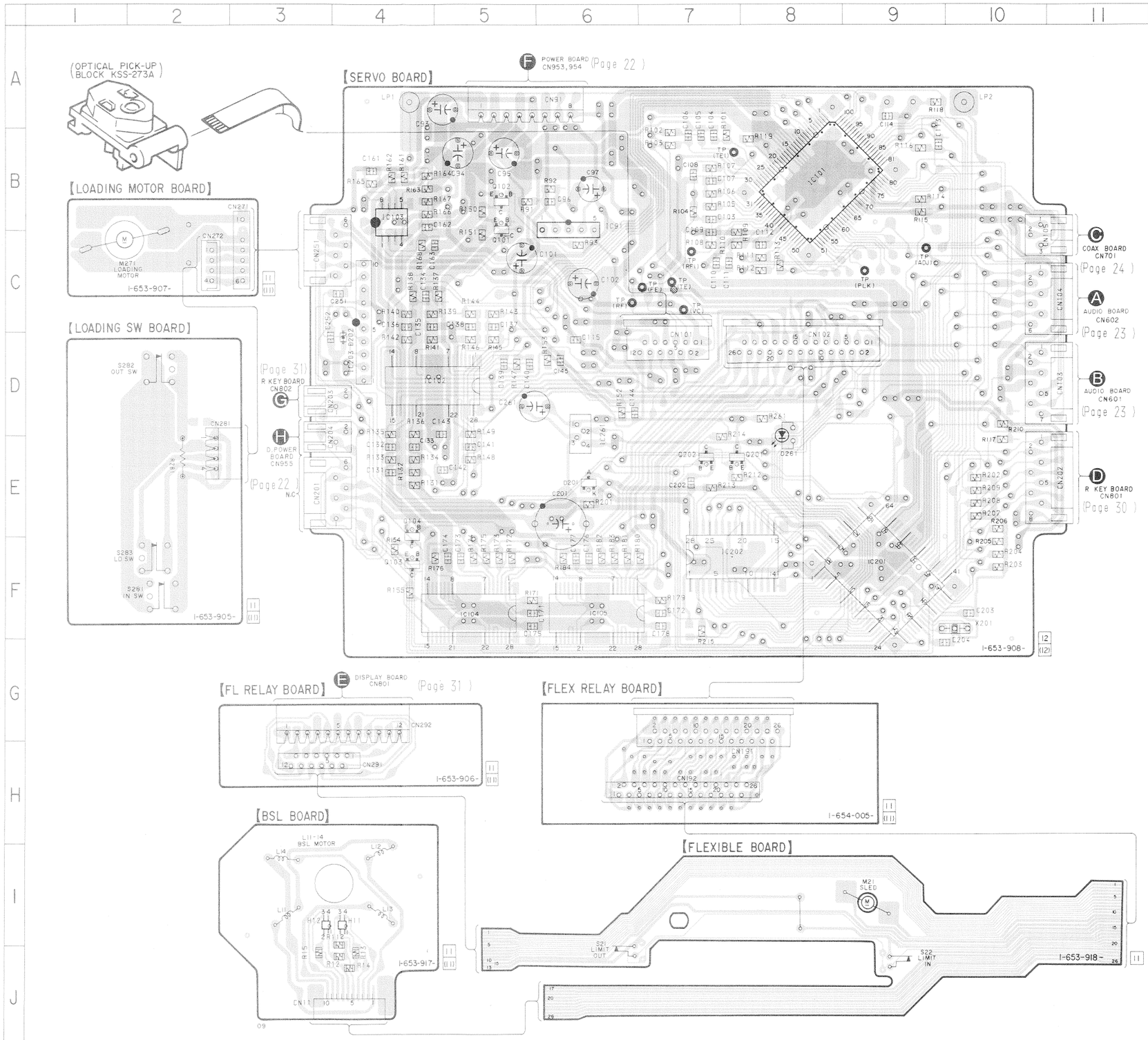


5-4. PRINTED WIRING BOARD — SERVO SECTION —

• See page 10 for Circuit Boards Location.

• Semiconductor Location

Ref. No.	Location
D201	E-6
D202	D-4
D261	E-8
H11	I-4
H12	I-3
IC91	B-6
IC101	B-8
IC102	D-4
IC103	B-4
IC104	F-5
IC105	F-6
IC201	F-9
IC202	F-7
IC203	C-4
IC261	D-6
Q101	C-5
Q102	B-5
Q103	F-4
Q104	E-4
Q201	E-7
Q202	E-7

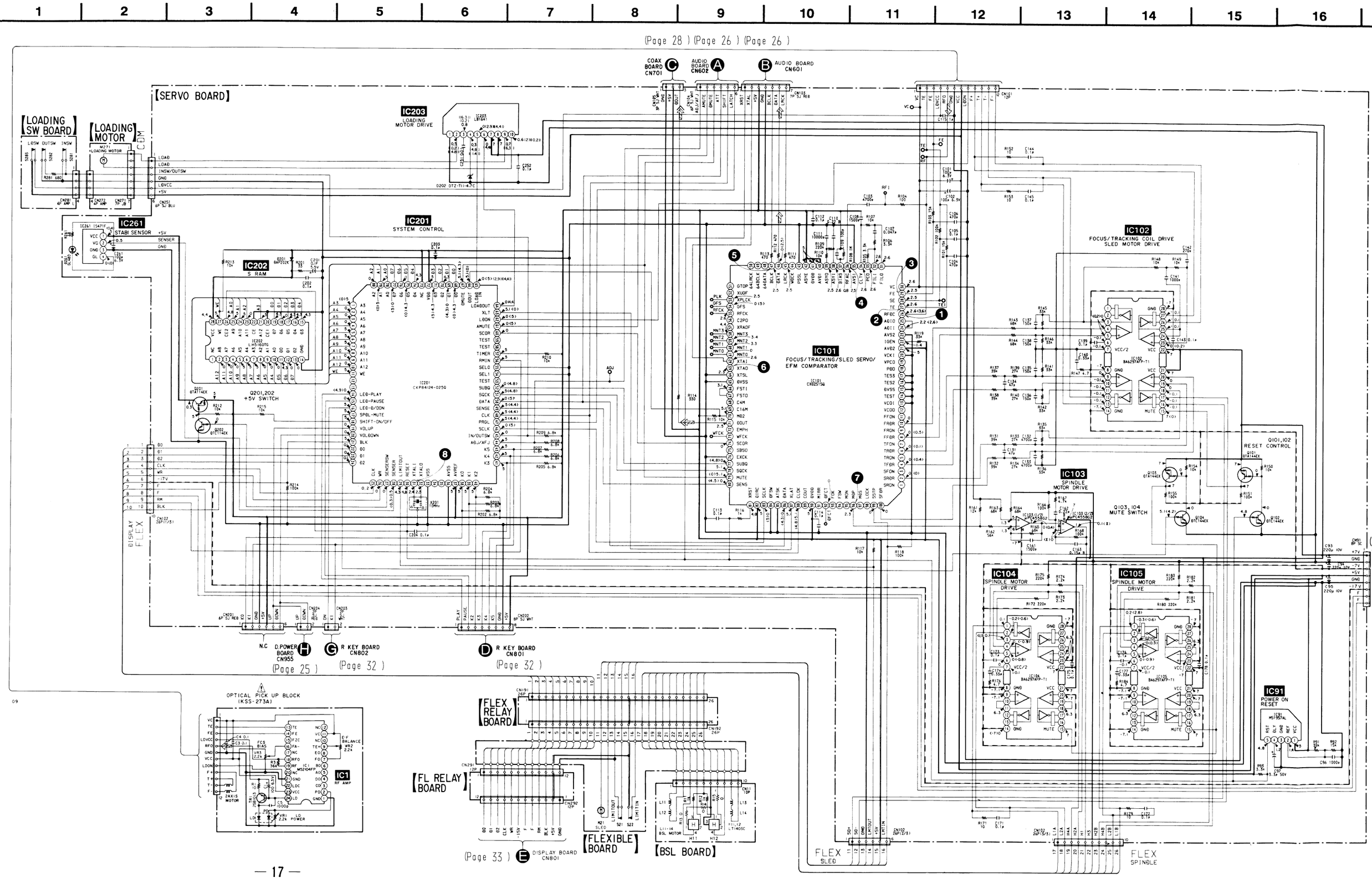


Note:

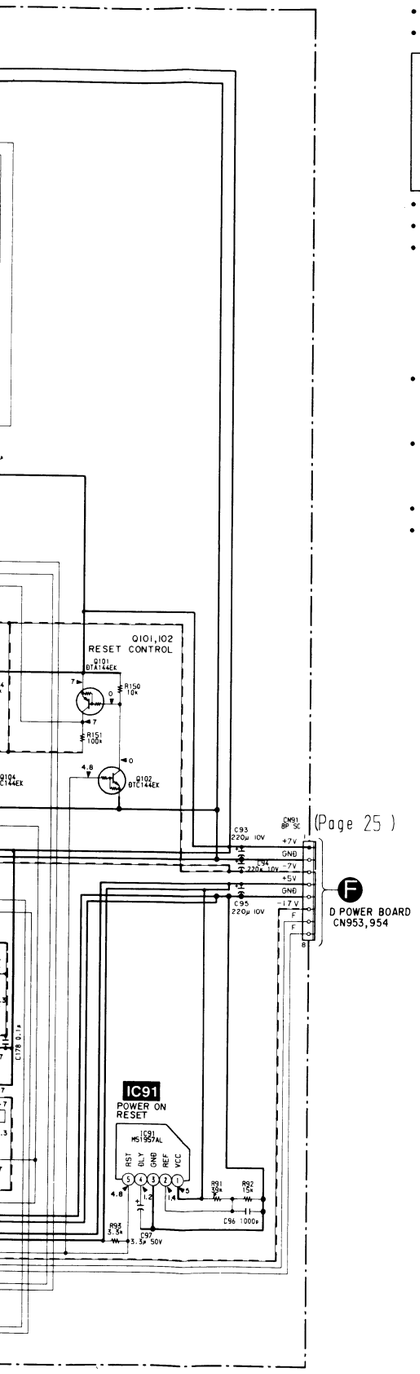
- ○—— : parts extracted from the component side.
- —— : parts extracted from the conductor side.
- ○ : Through hole.
- : Pattern from the side which enable seeing.
- : Pattern of the rear side.

5-5. SCHEMATIC DIAGRAM — SERVO SECTION —

• See page 35 for IC Pin Functions. (IC201)



15 | 16



Note:

- All capacitors are in μF unless otherwise noted. pF:μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4W or less unless otherwise specified.
- △ : internal component.
- ▭ : panel designation.

Note:	**Note:**
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

- ▬▬ : B+ Line
- ▪▪▪▪▪ : B– Line
- Voltage and waveforms are dc with respect to ground in playback mode.
  no mark : STOP
  < > : PLAY
  ( ) : LOAD OUT
  (( )) : LOAD IN
- Voltages are taken with a VOM (Input impedance 10MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  ⇨ : CD
  ⇛ : digital out

• Waveforms

❶ 1.2Vp-p
IC101 ㉖

❷ 2.5V
APPROX 400mVp-p
IC101 ㉗

❸ 2.5V
APPROX 200mVp-p
IC101 ㉙

❹ 1.2Vp-p
IC101 ㊱

❺ 5Vp-p
470nsec
IC101 ㊼

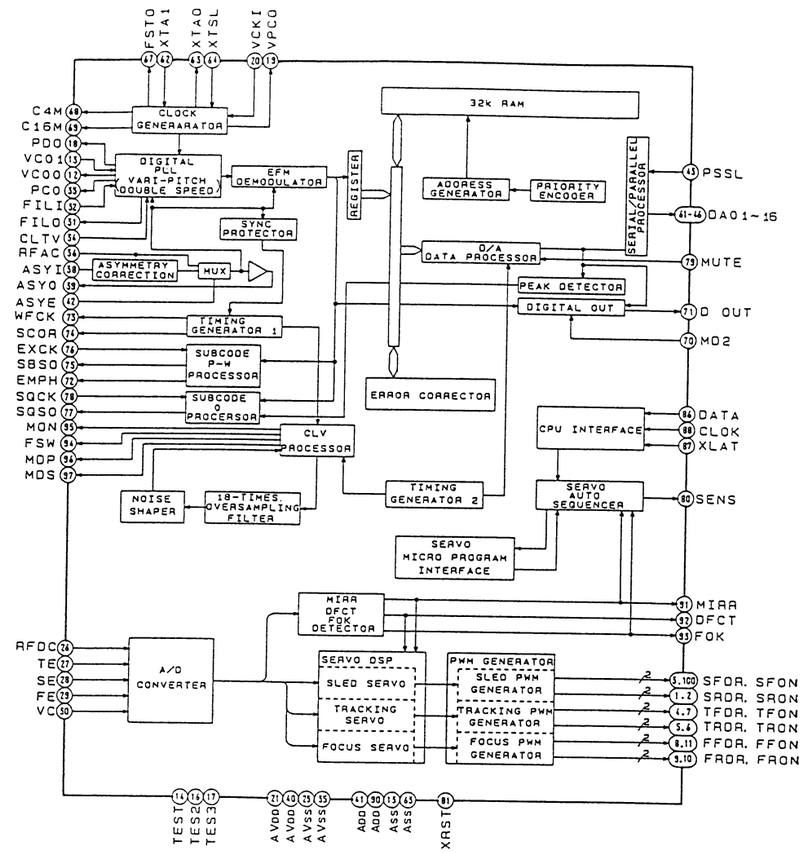
❻ 4.8Vp-p
16MHz
IC101 ㊸

❼ 2.6Vp-p
7.5 μsec
IC101 ㊻

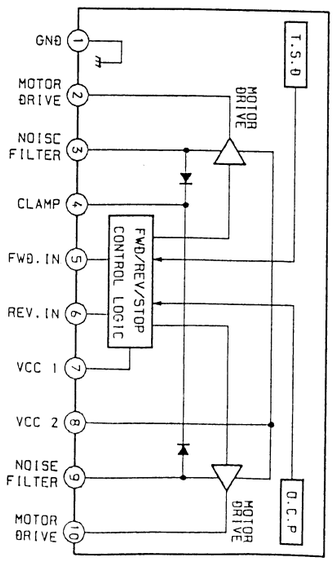
❽ 4.6Vp-p
10MHz
IC201 ㉛

• IC Block Diagrams

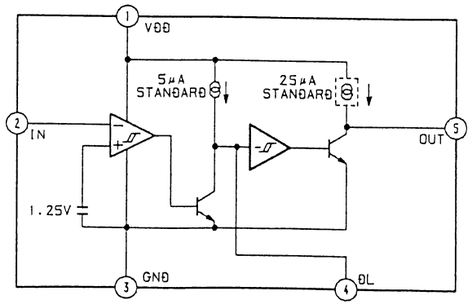
IC101 CXD2515Q



IC203 LB1641

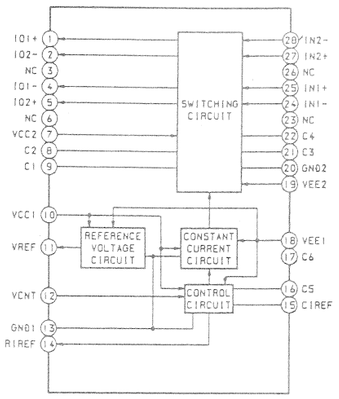


IC91 M51957AL

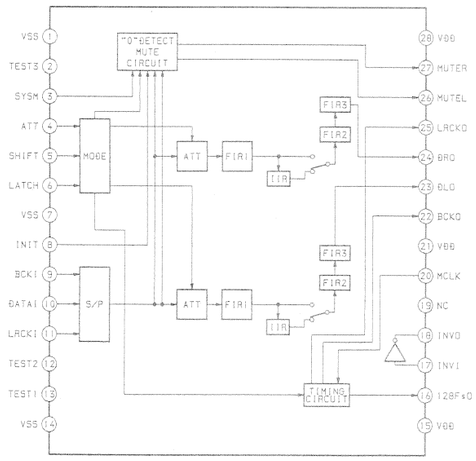


• IC Block Diagrams

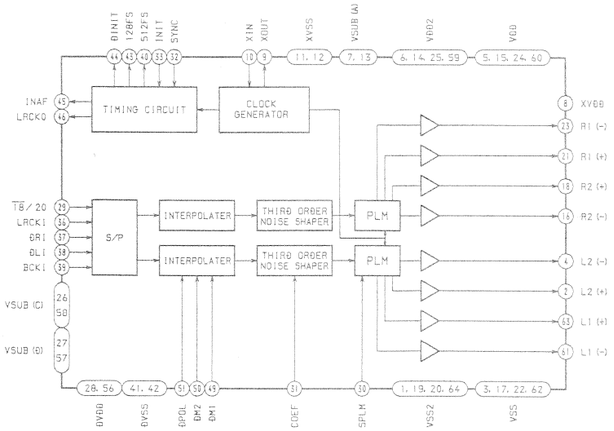
IC400, 500 CXA8042S



IC601 CXD8504M



IC603 CXD2562Q



• Semiconductor Location

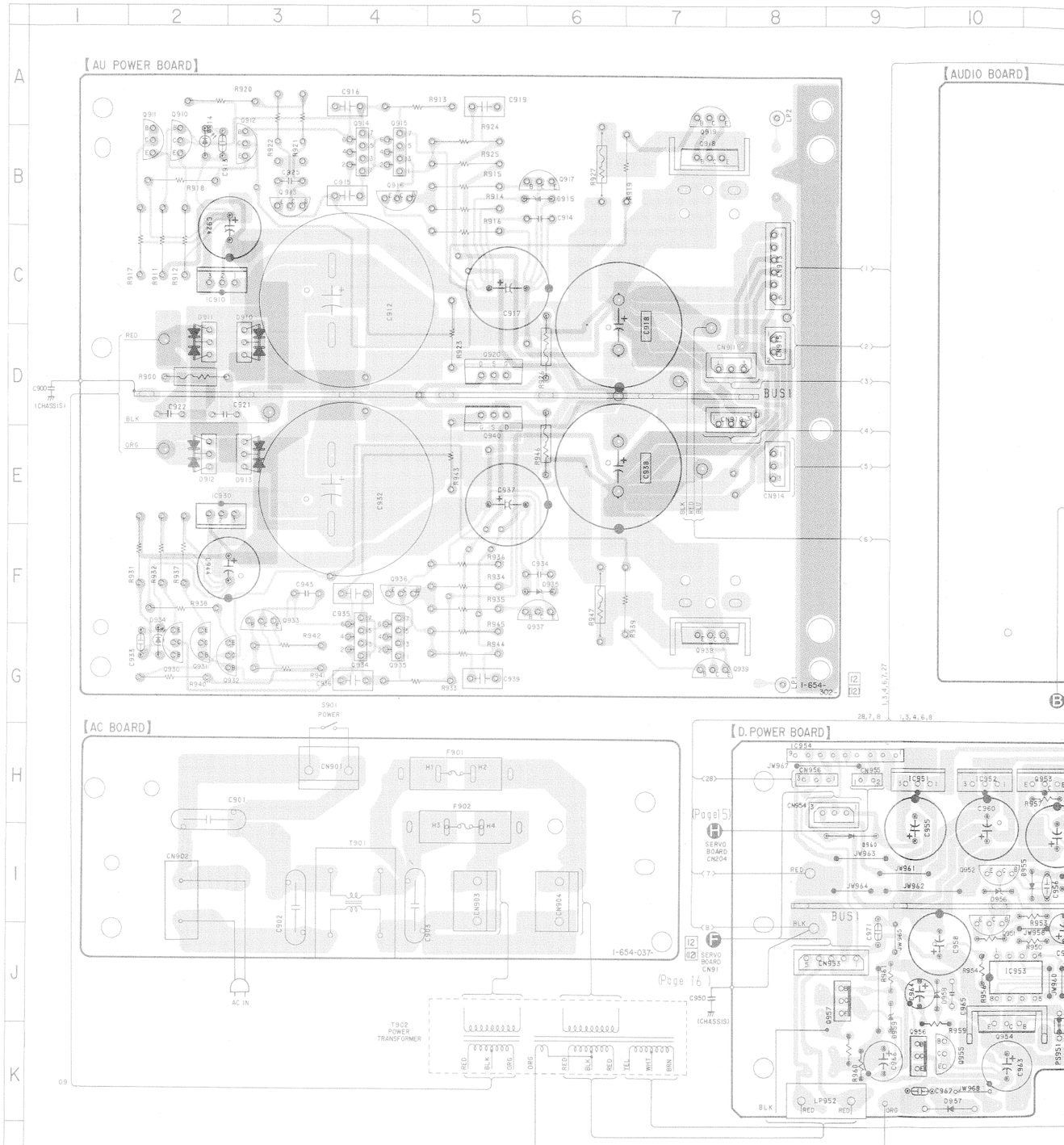
Ref. No.	Location	Ref. No.	Location
D401	F-23	Q413	F-21
D402	F-16	Q414	E-21
D405	F-19	Q415	E-21
D451	E-23	Q416	E-21
D501	B-23	Q417	F-21
D502	B-16	Q418	E-21
D505	B-19	Q419	F-20
D551	C-23	Q420	E-23
D651	E-17	Q421	F-18
D661	J-18	Q422	F-18
D662	J-20	Q451	C-12
D663	L-19	Q460	J-15
D664	L-19	Q461	K-16
D666	K-19	Q462	K-16
D667	K-19	Q463	K-15
D701	F-25	Q513	C-21
D910	D-3	Q514	C-21
D911	D-2	Q515	C-21
D912	E-2	Q516	D-21
D913	E-3	Q517	C-21
D914	B-2	Q518	C-21
D915	B-6	Q519	B-20
D934	G-2	Q520	C-23
D935	F-6	Q521	C-18
D951	H-13	Q522	B-18
D952	H-13	Q551	C-12
D953	J-13	Q560	J-15
D954	J-13	Q561	I-16
D955	I-11	Q562	I-16
D956	I-10	Q563	I-15
D957	K-10	Q601	B-11
D958	J-10	Q651	E-18
D959	J-9	Q652	C-17
D960	I-9	Q661	I-19
		Q662	K-20
PH451	B-12	Q663	K-20
PH551	B-12	Q664	L-19
PH661	I-19	Q665	K-19
		Q666	K-19
IC400	F-14	Q910	B-2
IC401	F-18	Q911	B-2
IC402	E-19	Q912	B-3
IC403	E-20	Q913	B-3
IC404	F-20	Q914	B-4
IC405	F-16	Q915	B-4
IC406	F-16	Q916	B-4
IC460	K-22	Q917	B-6
IC461	K-14	Q918	B-7
IC500	B-14	Q919	A-7
IC501	B-18	Q920	D-5
IC502	C-19	Q930	G-2
IC503	C-20	Q931	G-2
IC504	B-20	Q932	G-2
IC505	C-16	Q933	F-3
IC506	B-16	Q934	G-4
IC560	I-22	Q935	G-4
IC561	I-14	Q936	F-4
IC601	D-12	Q937	F-6
IC602	E-12	Q938	G-7
IC603	D-13	Q939	G-7
IC604	D-14	Q940	D-5
IC651	D-18	Q951	I-10
IC701	C-26	Q952	I-10
IC702	A-25	Q953	H-11
IC910	C-2	Q954	J-10
IC930	E-2	Q955	K-10
IC951	H-9	Q956	K-9
IC952	H-10	Q957	J-9
IC953	J-10		
IC954	H-9		

Note:

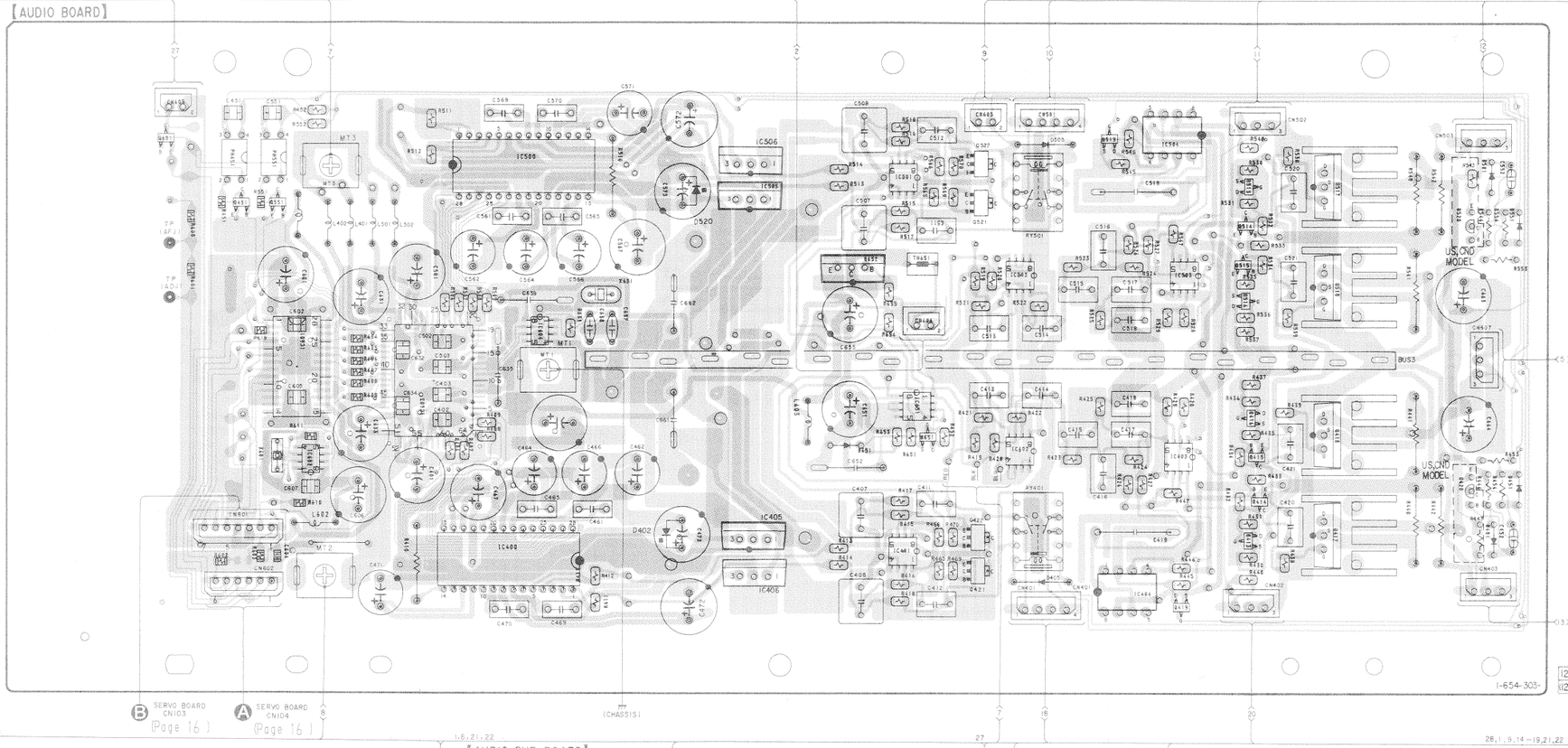
- ○—— : parts extracted from the component side.
- —— : parts extracted from the conductor side.
- ○ : Through hole.
- ■ : parts mounted on the conductor side.
- : Pattern from the side which enable seeing.
- : Pattern of the rear side.
- Abbreviation
  CND : Canadian model.

5-6. PRINTED WIRING BOARD — MAIN SECTION —

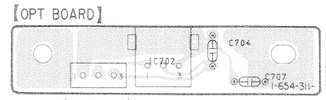
• See page 10 for Circuit Boards Location.
• See page 14 for Semiconductor Lead Layouts.



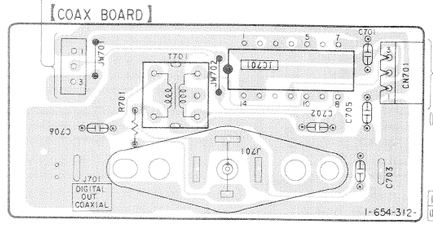
【AUDIO BOARD】



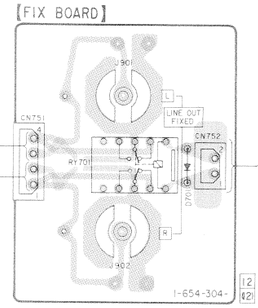
【OPT BOARD】



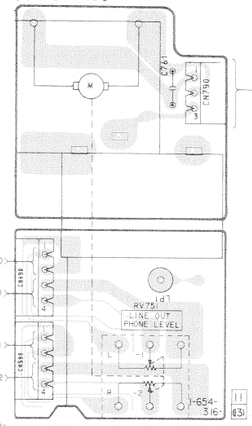
【COAX BOARD】



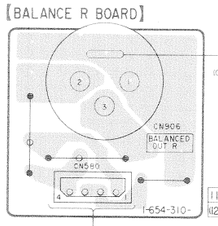
【FIX BOARD】



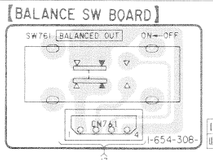
【VR BOARD】



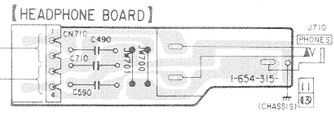
【BALANCE R BOARD】



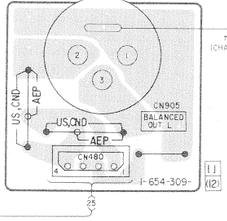
【BALANCE SW BOARD】



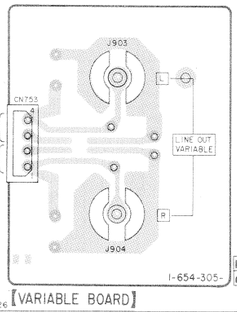
【HEADPHONE BOARD】



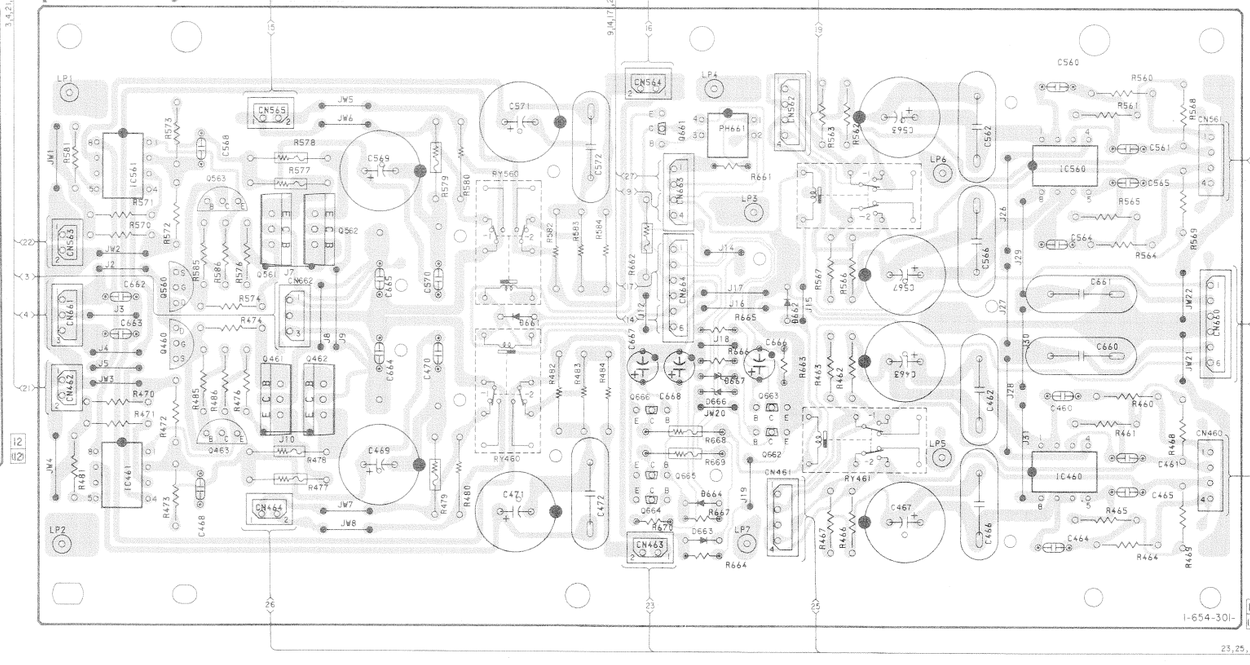
【BALANCE L BOARD】



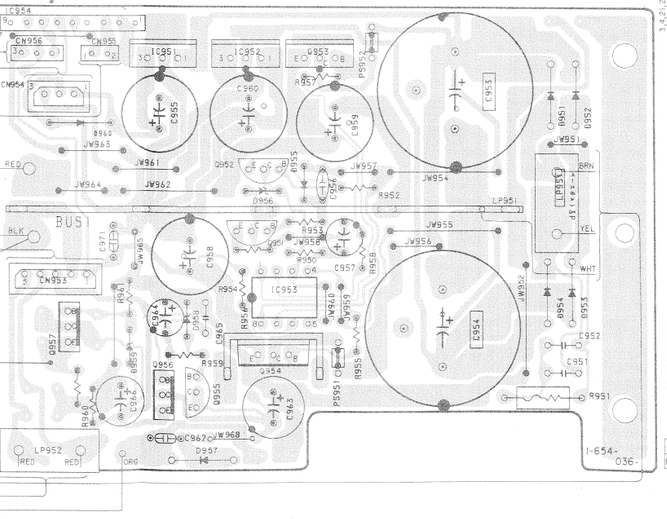
【VARIABLE BOARD】



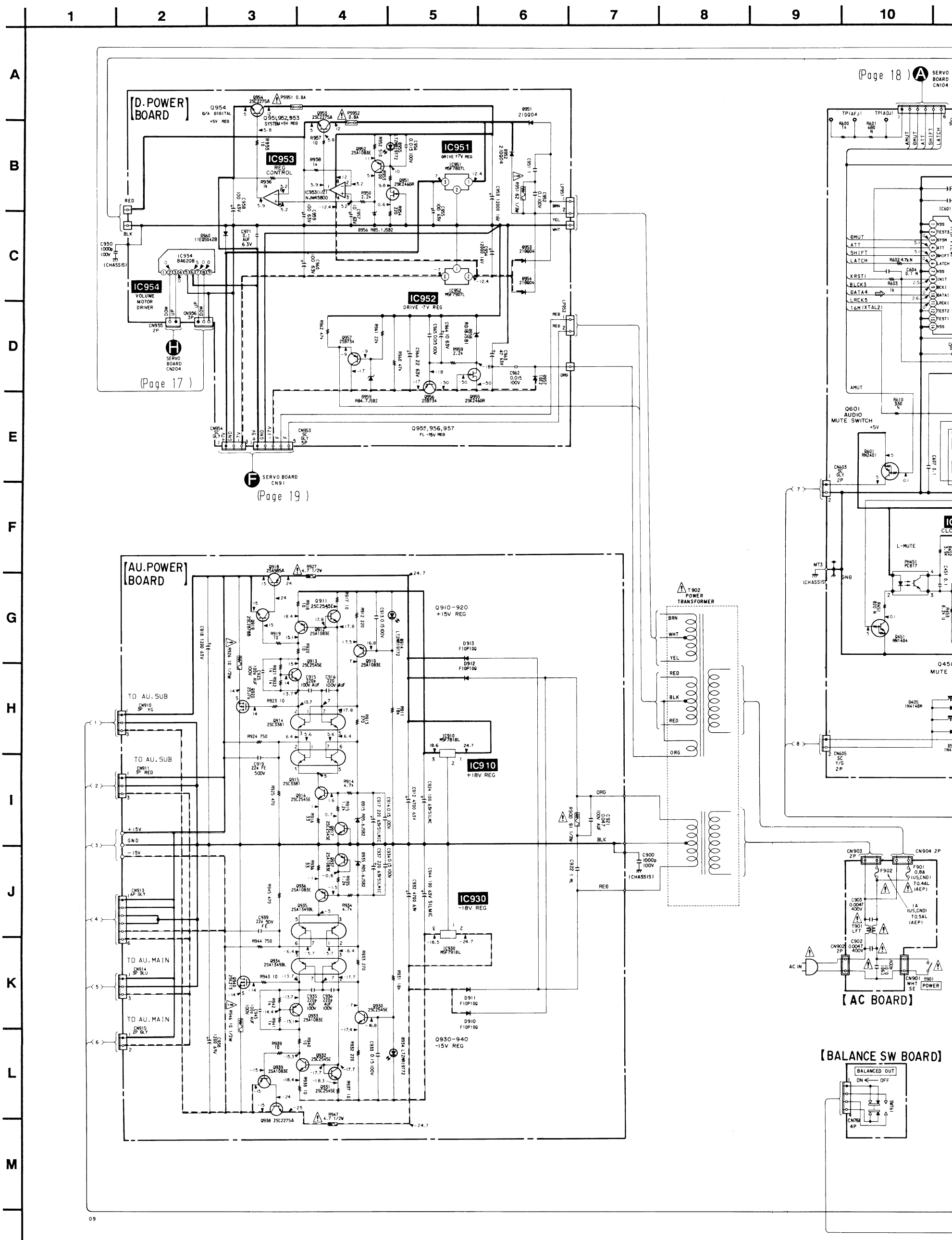
【AUDIO SUB BOARD】

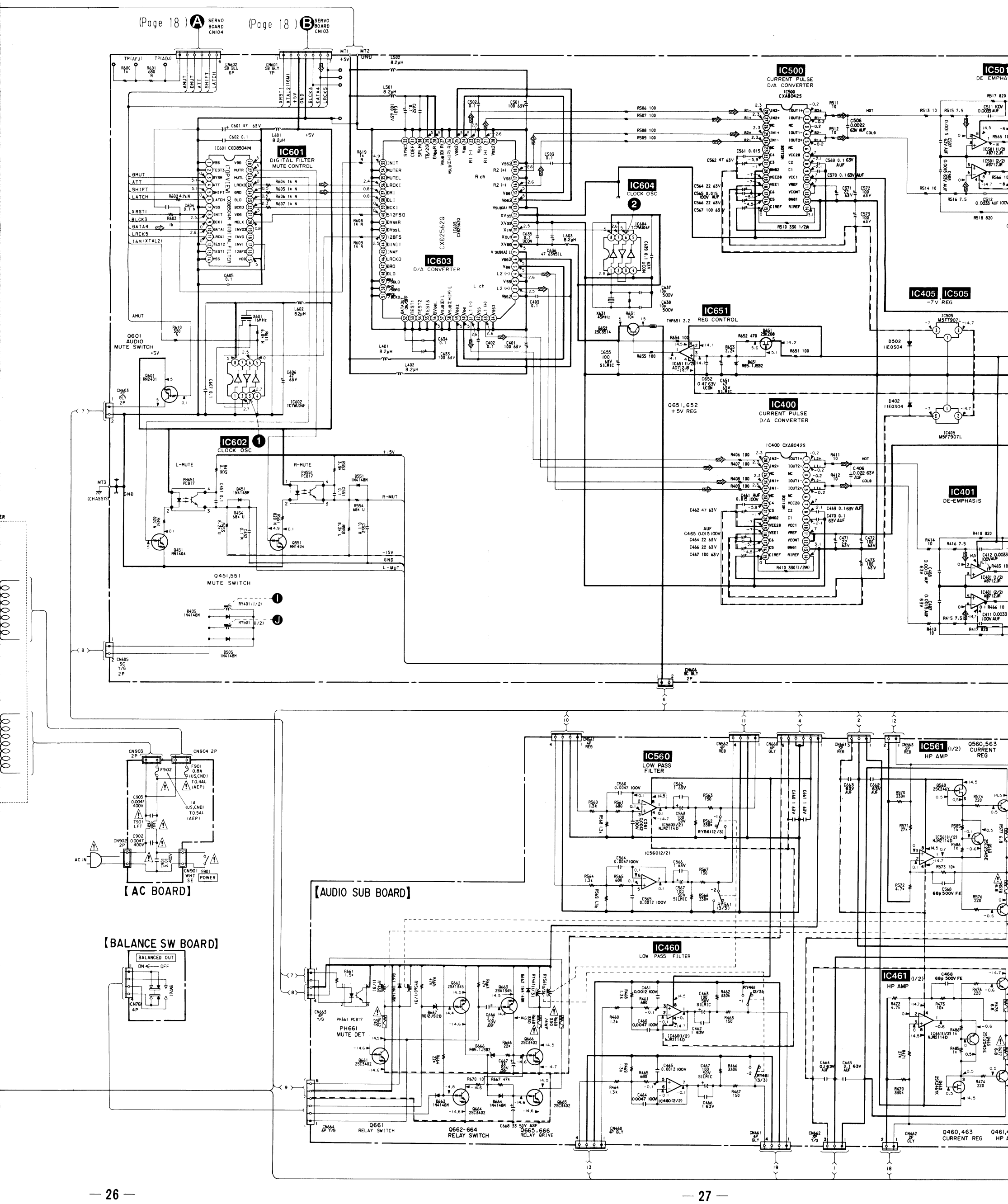


【BUS BOARD】



5-7. SCHEMATIC DIAGRAM — MAIN SECTION —




(Page 18) A SERVO BOARD CN104
(Page 18) B SERVO BOARD CN103
IC601 DIGITAL FILTER MUTE CONTROL
IC603 D/A CONVERTER
IC604 CLOCK OSC
IC500 CURRENT PULSE D/A CONVERTER
IC651 REG CONTROL
IC602 CLOCK OSC
IC400 CURRENT PULSE D/A CONVERTER
IC405 IC505 -7V REG
IC401 DE-EMPHASIS
Q601 AUDIO MUTE SWITCH
Q451,551 MUTE SWITCH
Q651,652 +5V REG
IC560 LOW PASS FILTER
IC460 LOW PASS FILTER
IC561 (1/2) HP AMP
IC461 (1/2) HP AMP
PH661 MUTE DET
Q661 RELAY SWITCH
Q662-664 RELAY SWITCH
Q665,666 RELAY DRIVE
【AC BOARD】
【AUDIO SUB BOARD】
【BALANCE SW BOARD】
BALANCED OUT
ON ← OFF

IC500 CURRENT PULSE D/A CONVERTER
IC500 CXA8042S

IC501 DE EMPHASIS

IC502 MIX AMP

IC503 BUFFER (1/2)

IC503 BUFFER (2/2)

Q513-516 CONSTANT CURRENT

Q517,518 AUDIO AMP

Q519,520 MUTE SWITCH

US,CND MODEL

IC504 FEED BACK AMP

IC405, IC505 -7V REG

IC406, IC506 +7V REG

IC651 REG CONTROL

Q651,652 +5V REG

IC400 CURRENT PULSE D/A CONVERTER

IC401 DE-EMPHASIS

IC402 MIX AMP

IC404 FEED BACK AMP

Q417,418 AUDIO AMP

Q419,420 MUTE SWITCH

Q421,422 OCP

Q521,522 OCP

IC403 BUFFER (2/2)

IC403 BUFFER (1/2)

Q413-416 CONSTANT CURRENT

【AUDIO BOARD】

IC560 LOW PASS FILTER

IC561 (1/2) HP AMP

Q560,563 CURRENT REG

Q561,562 HP AMP

IC561 (2/2) VARIABLE AMP

IC460 LOW PASS FILTER

IC461 (1/2) HP AMP

Q460,463 CURRENT REG

Q461,462 HP AMP

IC461 (2/2) VARIABLE AMP

【BALANCE R BOARD】

【BALANCE L BOARD】

【VARIABLE BOARD】

【COAX BOARD】

IC701 WAVE FORM SHAPER

【HEADPHONE BOARD】

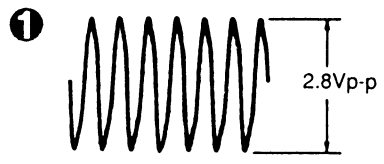
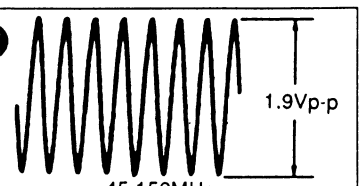
【FIX

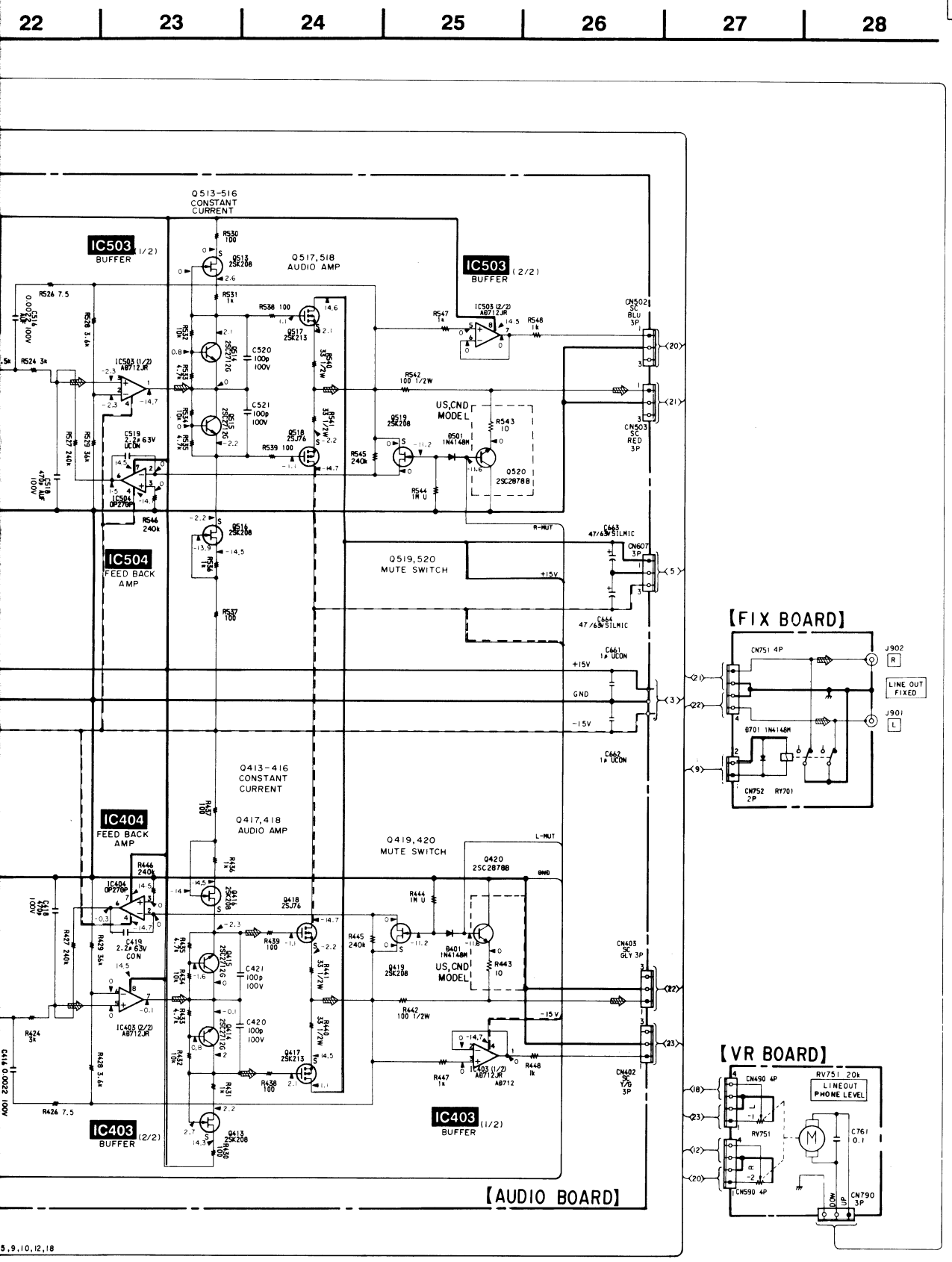
【VR BO

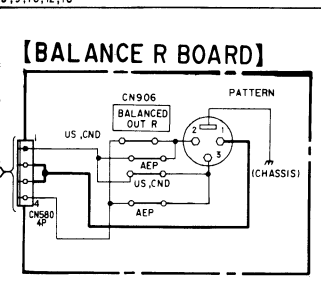
【OP

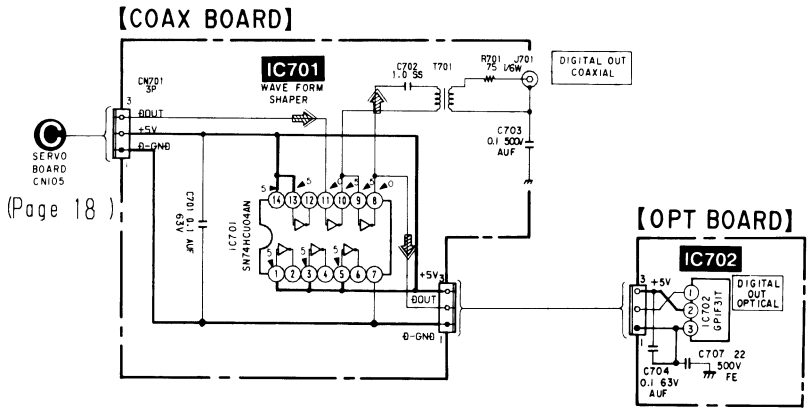
(Page 18)

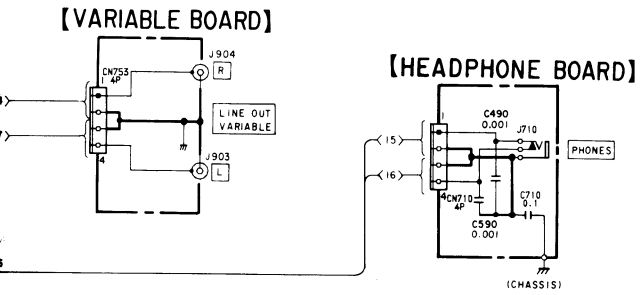
• **Waveforms**

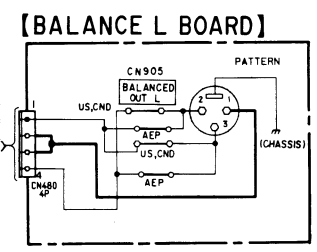
❶	❷
	
16MHz IC602 ③	45.159MHz IC604 ⑥











Note:

- All capacitors are in μF unless otherwise noted. pF:μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4W or less unless otherwise specified.
- △ : internal component.
- ▭ : fusible resistor.
- ▭ : panel designation.

Note:	**Note:**
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

- ▬▬ : B+ Line
- ▬ ▬ : B– Line
- Voltage and waveforms are dc with respect to ground under no-signal conditions.
  no mark : STOP
- Voltages are taken with a VOM (Input impedance 10MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope.
  Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  ⇨ : CD
  ⇨ : digital out
- Abbreviation
  CND : Canadian model.

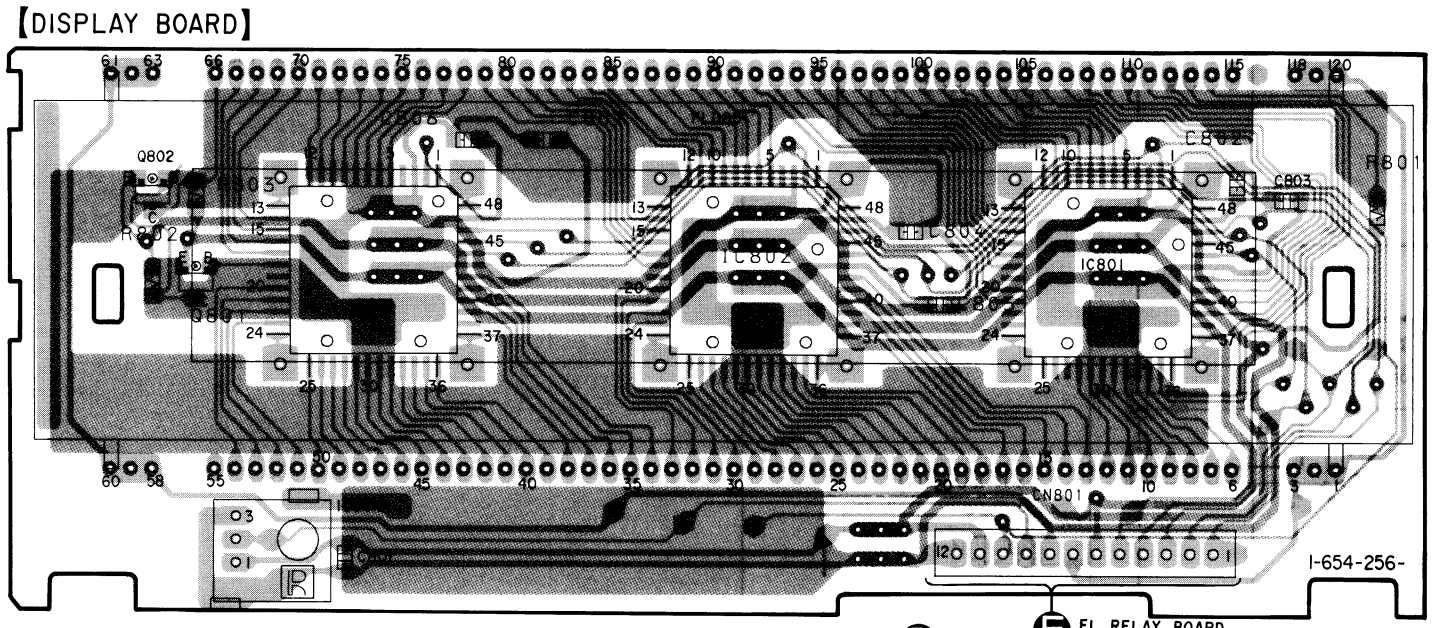
• **Semiconductor Location**

Ref. No.	Location
D801	G-5
D802	G-3
D803	D-2
IC801	B-6
IC802	B-4
IC803	B-2
IC804	C-2
Q801	B-2
Q801	G-4
Q802	B-2
Q802	G-2
Q803	D-3

5-8. PRINTED WIRING BOARD — PANEL SECTION —

• See page 10 for Circuit Boards Location.
• See page 14 for Semiconductor Lead Layouts.

【DISPLAY BOARD】



Note:
- ○—— : parts extracted from
- —— : parts extracted from
- ○ : Through hole.
- : Pattern from the sid
- : Pattern of the rear s

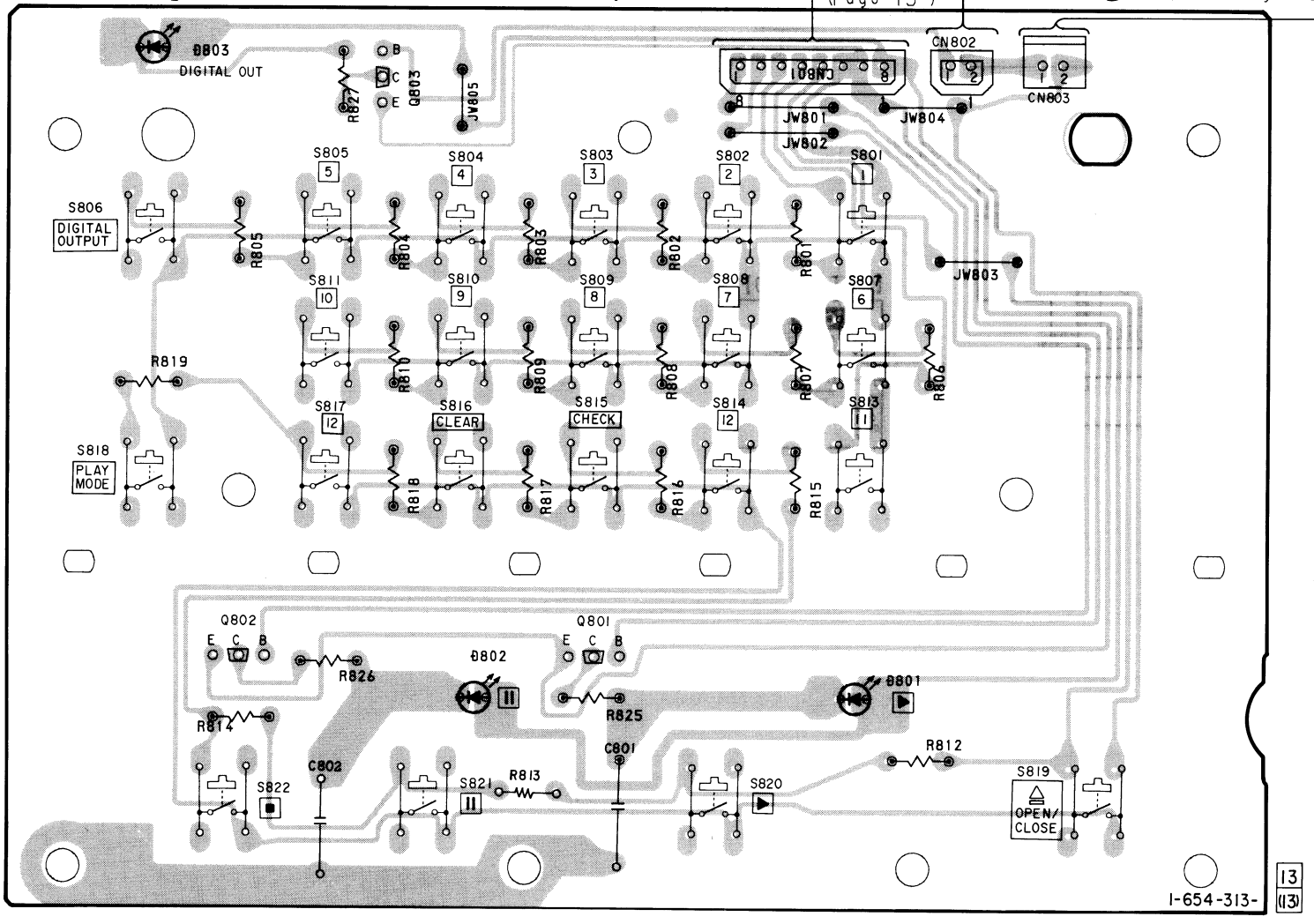
E FL RELAY BOARD CN292

【R KEY BOARD】

D SERVO BOARD CN202 (Page 16)

G SERVO BOARD CN203 (Page 15)

【L KEY BOARD】

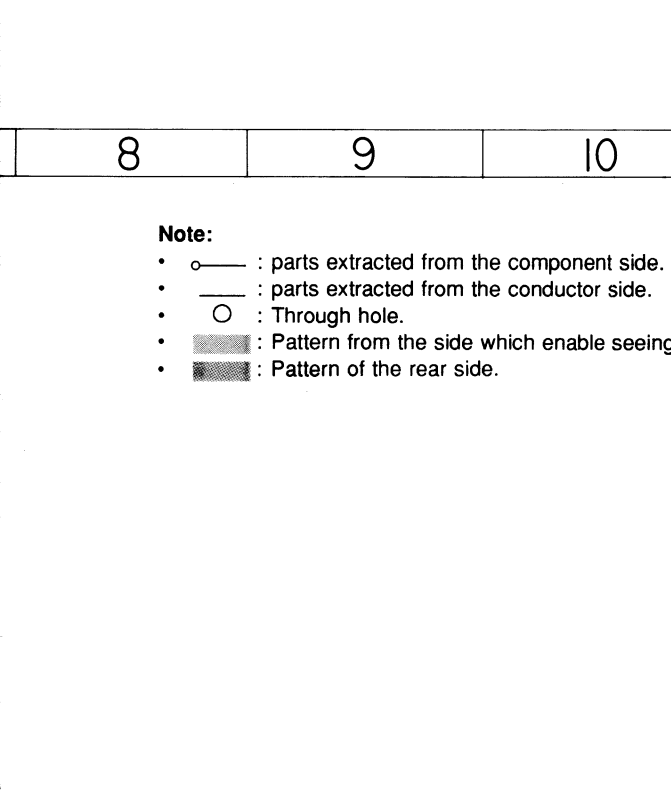


8	9	10

Note:

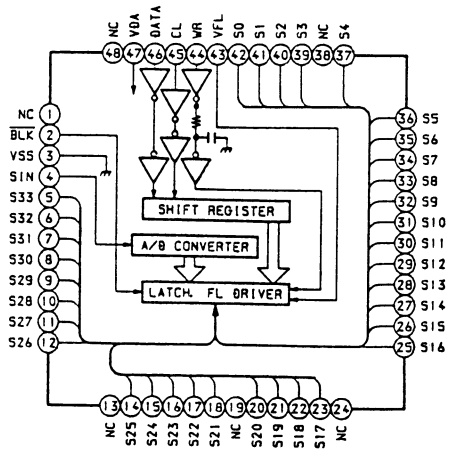
- ○—— : parts extracted from the component side.
- —— : parts extracted from the conductor side.
- ○ : Through hole.
- ▒▒▒ : Pattern from the side which enable seeing.
- ▓▓▓ : Pattern of the rear side.

L KEY BOARD】

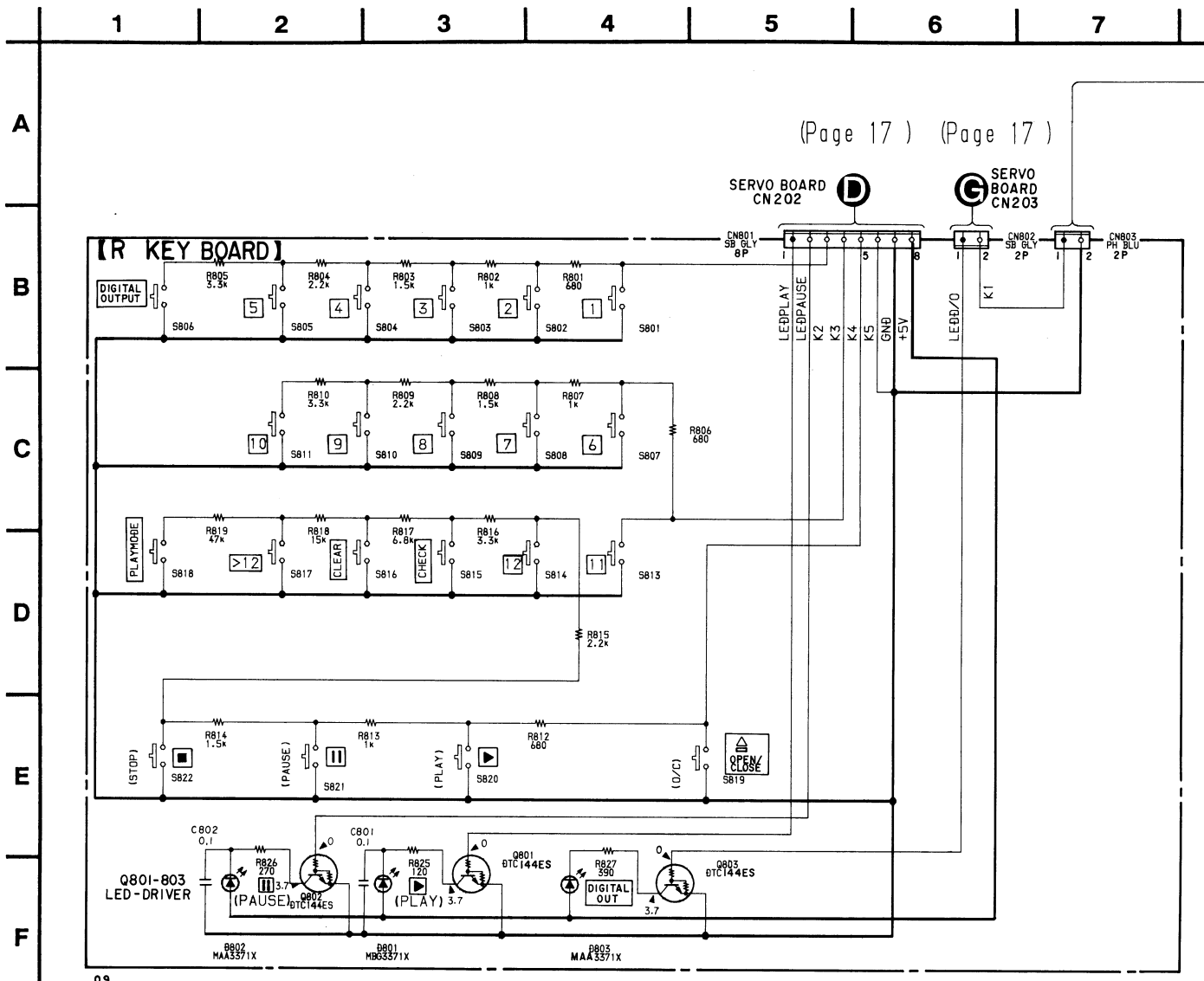


• IC Block Diagram

IC801-803 LC7570E



5-9. SCHEMATIC DIAGRAM — PANEL SECTION —



Note:

- All capacitors are in μF unless otherwise noted. pF:μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4W or less unless otherwise specified.
- □ : panel designation.
- ▬▬ : B+ Line
- ▪▪▪▪▪ : B– Line
- Voltage and waveforms are dc with respect to ground under no-signal conditions.
  no mark : STOP
- Voltages are taken with a VOM (Input impedance 10MΩ). Voltage variations may be noted due to normal production tolerances.

ge 17) (Page 17)

D

G SERVO BOARD CN203

CN802 SB BLY 2P

CN803 PH BLU 2P

K1

LEDD/O

K4

K5

GND

+5V

FL RELAY BOARD CN292

E

(Page 17)

D0 D1 D2 FLDCLK WR −17V F F RMIN BLK +5V GND

CN801

IC801 – IC803 FL DRIVER

IC803 LC7570E

IC802 LC7570E

IC801 LC7570E

Q801 2SC3995

Q802 2SA1341

R802 47k

R803 100k

Q801, 802 FL SWITCH

R801 150

C806 0.01

C807 0.01

C804 0.01

C805 0.01

C802 0.01

C803 0.01

C801 0.1

IC804 SBX1610-59

IC804 REMOTE CONTROL SENSOR

VCC SIG GND

CN804 PH BLU 2P

【L KEY BOARD】

R849 1.5k

S826 (FF)

S827 (FR)

S828

S829

R848 1k (NEXT)

R847 680 (PREV)

FL0801

【DISPLAY BOARD】

5-10. IC PIN FUNCTIONS

- **IC201 System Control (CXP84124-025Q)**

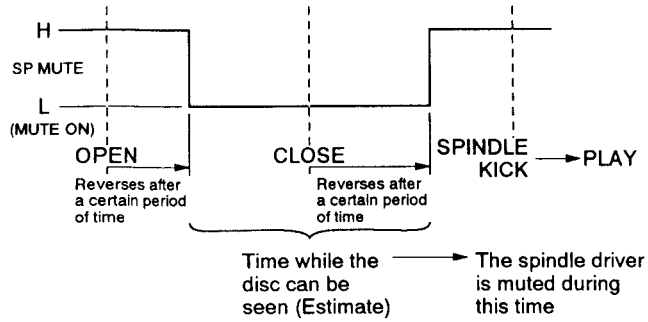
Pin No.	Pin Name	I/O	Function
1	A3	O	Output of address to S.RAM (LH5160TG)
2	A4	O	
3	A5	O	
4	A6	O	
5	A7	O	
6	A8	O	
7	A9	O	
8	A10	O	
9	A11	O	
10	A12	O	
11	WE	O	Output of write enable to S.RAM
12	——	O	Not used (open)
13	——	O	
14	LED-PLAY	O	PLAY Lamp output "H": ON
15	LED-PAUSE	O	PAUSE Lamp output "H": ON
16	LED-D/O ON	O	DIGITAL OUT Lamp output
17	SPDL-MUTE	O	Drive IC MUTE output for spindle. "L": ON
18	SHIFT-ON/OFF	I	D/F mode control input
19	VOL UP	O	Headphone motor volume up output
20	VOL DOWN	O	Headphone motor volume down output
21	BLK	O	Blank output to fluorescent indicator tube driver. (LC7570E). When the indicator tube lights: "H"
22	D0	O	Serial data output to fluorescent indicator tube driver. (LC7570E).
23	D1	O	
24	D2	O	
25	CLK	O	Clock output to fluorescent indicator tube driver. (LC7570E).
26	WR	O	Latch output to fluorescent indicator tube driver. (LC7570E).
27	SENSER SW	O	Senser power supply ON/OFF control output for stabilizer detection
28	SENSER	I	Stabilizer detection input
29	LIMIT OUT	I	Sled out switch input "L": SW ON
30	RESET	I	Microcomputer reset input
31	XTAL I	I	Oscillator connector pin (10 MHz)
32	XTAL O	O	
33	Vss	–	Connected to GND
34	——	–	Not used (open)
35	——	–	
36	AVss	–	A/D converter GND
37	AVREF	–	A/D converter reference voltage input (Connected to +5V)
38	K0	I	Key data input (A/D input). When the key is not pressed: "H"
39	K1	I	
40	K2	I	

Pin No.	Pin Name	I/O	Function
41	K3	I	Key data input (A/D input). When the key is not pressed: "H"
42	K4	I	
43	K5	I	Model distinction
44	ADJ/AFJ	I	Test mode input. The equipment is fixed at "H"
45	IN/OUT SW	I	Loading IN/OUT switch input
46	SCLK	O	Serial read out data read out clock output to CXD2515Q
47	PRGL	O	Program latch to digital filter
48	CLK	O	Serial data transfer clock output to CXD2515Q, CXD8504M
49	SENSE	I	SENSE signal input from CXD2515Q
50	DATA	O	Serial data output to CXD2515Q, CXD8504M
51	SQCK	O	Sub code Q read out clock output to CXD2515Q
52	SUBQ	I	Sub code Q data input from CXD2515Q
53	TEST	O	Not used (open)
54	SEL 1	I	Model distinction
55	SEL 0	I	
56	RMIN	I	Remote control signal input
57	TIMER	I	Not used
58	TEST	O	Not used (open)
59	TEST	O	
60	SCOR	I	Sub code sync input from CXD2515Q. Start to read out the sub code receiving this signal
61	AMUTE	O	Analog mute output. "H": mute on
62	LDON	O	Laser diode ON/OFF control output "H": ON
63	XLT	O	Serial data latch output to CXD2515Q
64	LOAD OUT	O	Output to rotate loading motor in the loading out direction. "H": OUT
65	LOAD IN	O	Output to rotate loading motor in the loading in direction. "H": IN
66	DOUT	O	Digital output ON/OFF control output
67	DMUTE	O	Muting control output
68	D0	I/O	Input and output of data signal with S.RAM (LH5160TG)
69	D1	I/O	
70	D2	I/O	
71	D3	I/O	
72	V_{DD}	I	Power supply terminal (+5V)
73	NC	–	Connected to +5V
74	D4	I/O	Input and output of data signal with S.RAM (LH5160TG)
75	D5	I/O	
76	D6	I/O	
77	D7	I/O	
78	A0	O	Address signal output to S.RAM (LH5160TG)
79	A1	O	
80	A2	O	

• Main Ports

⑰ SPINDLE MUTE

From the viewpoint of performance of the set, the disc must not move nor sway when the disc table opens. These problems however occur in the actual case due to the offset voltage generated and the voltage generated because of the positional relation between the BSL coil and Hall element.
The BSL (IC104, IC105) driver is therefore muted while the tray is open. Pin ⑰ provides the timing for this.

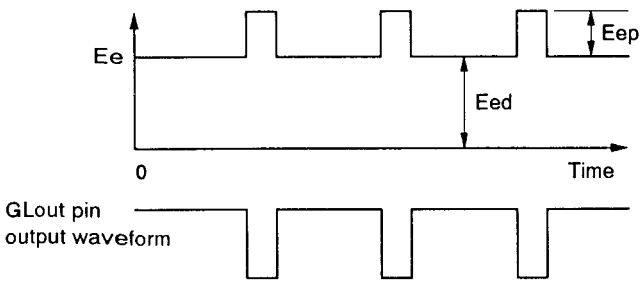


㉑ BLANK

This port is required because the display tube in this set static-lights up and a dedicated screwdriver is required.
It is basically a RESET pin. But as problems will occur if used also as RESET, timings are specially provided using the microprocessor.

㉗ SENSER SW

As IC261 IS471F operate in pulse as shown in the figure, the sound quality may be affected if operated constantly.
As the purpose of IC261 is to detect if the presence of the stabilizer, it should be operated only when the tray is drawn in. IC261 operates as it is H only at this time. Normally it is L.



* Eep is the luminance of the signal light tuned with the low level timing of the GLout pin output.
Eed is the luminance of the d.c. light. The light source is the infrated-emitting diode (λ p=940 nm).

㉘ SENSER

The results of the detection of IC261 IS471F is output to this pin. It becomes L when there is no stabilizer (when light reaches). The next process of imposing the next focus is not performed. (Effective only when ㉗ is H.)
Therefore, it must be noted that if PLAY is performed when the servo mount at the top of the CDM is not assembled properly, the detection circuit operates and this pin does not operate.
It is does not operate, refer to 1. Service Note "Preparations for Adjustment and Measurement" on page 4.

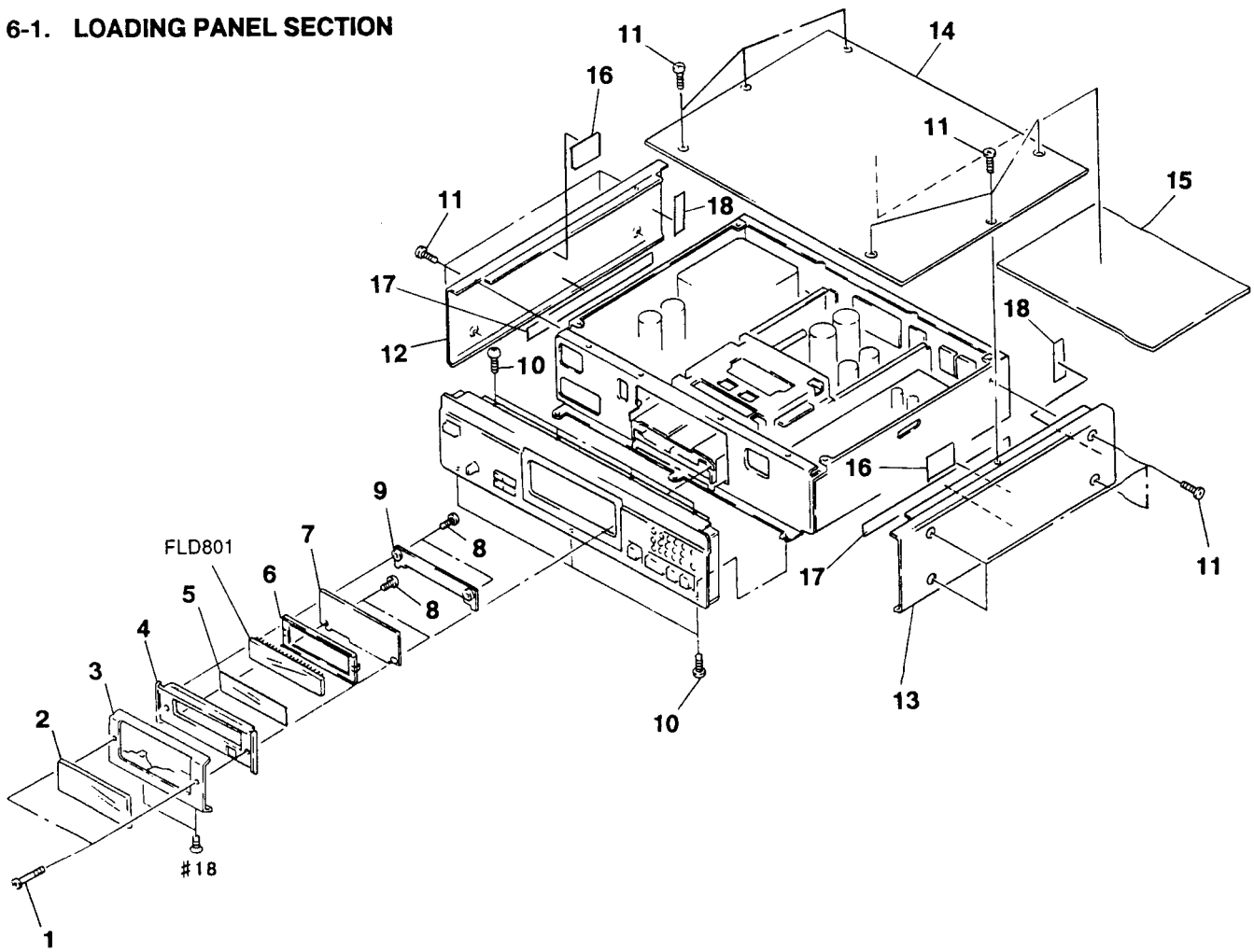
SECTION 6
EXPLODED VIEWS

NOTE:
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- Color Indication of Appearance Parts Example:
  KNOB, BALANCE (WHITE) . . . (RED)
  ↑ ↑
  Parts color Cabinet's color
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list and accessories and packing materials are given in the last of this parts list.
- Abbreviation
  CND : Canadian model
  G : German model

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

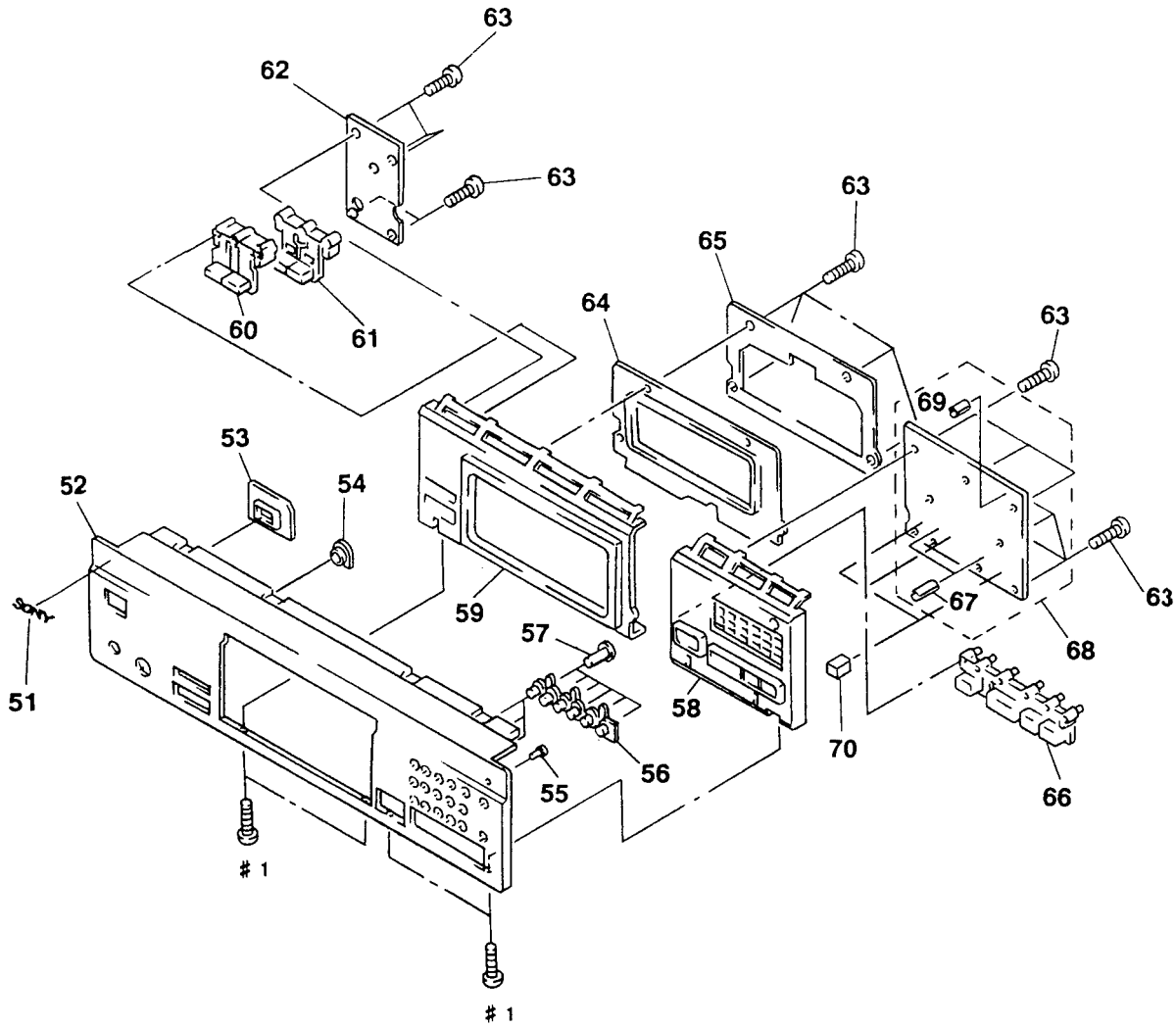
Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une piéce portant le numéro spécifié.

6-1. LOADING PANEL SECTION



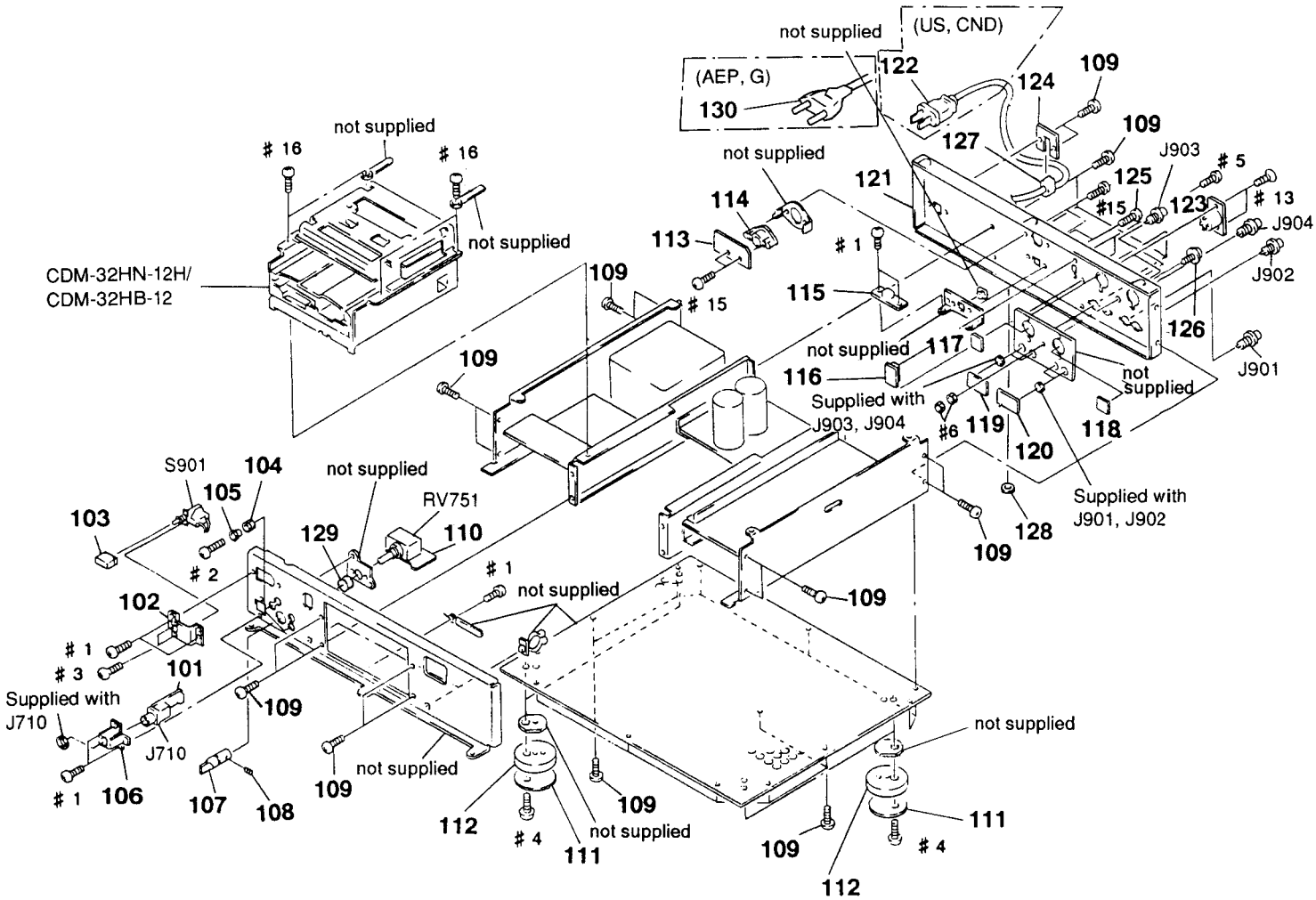
Ref. No.	Part No.	Description	Remark
1	4-970-998-01	BOLT (3X24), HEXAGON HOLE (BLACK)..	(BLACK)
1	4-970-998-11	BOLT (3X24), HEXAGON HOLE (SILVER)..	(GOLD)
2	4-969-832-01	PLATE, INDICATION	
3	4-969-830-01	PANEL, LOADING (BLACK)	
3	4-969-830-11	PANEL, LOADING (GOLD)	
4	4-969-831-01	BASE, LOADING PANEL (BLACK)	
4	4-969-831-11	BASE, LOADING PANEL (GOLD)	
5	4-969-834-01	FILTER	
* 6	4-969-510-01	HOLDER (FL)	
* 7	1-654-256-11	DISPLAY BOARD	
8	4-951-620-41	SCREW (2.6), +BVTP (BLACK)..	(BLACK)
8	4-951-620-51	SCREW (2.6), +BVTP (SILVER)..	(GOLD)
9	4-969-833-01	COVER, LOADING PANEL (BLACK)	
9	4-969-833-11	COVER, LOADING PANEL (GOLD)	
10	4-929-074-01	SCREW (3X8)	
11	4-924-242-11	SCREW (M3X6), FLAT HEAD (BLACK)..	(BLACK)
11	4-924-242-61	SCREW (M3X6), FLAT HEAD (SILVER)..	(GOLD)
12	4-969-823-11	PLATE (L), SIDE (GOLD)	
12	4-969-823-01	PLATE (L), SIDE (BLACK)	
13	4-969-824-01	PLATE (R), SIDE (BLACK)	
13	4-969-824-11	PLATE (R), SIDE (GOLD)	
14	4-969-864-01	PLATE, TOP (GOLD)	
14	4-969-864-12	PLATE, TOP (BLACK)	
* 15	4-972-444-01	ABSORBENT, VIBRATION	
16	4-971-708-01	PLATE, VIBRATION PROOF	
17	4-972-439-01	SPACER (SCREW HEAD)	
18	4-972-440-01	SPACER	
FLD801	1-517-357-11	INDICATOR TUBE, FLUORESCENT	

6-2. FRONT PANEL SECTION



Ref. No.	Part No.	Description	Remark
51	4-942-568-01	EMBLEM (NO. 5), SONY (SILVER)..(BLACK)	
51	4-942-568-21	EMBLEM (NO. 5), SONY (GOLD)..(GOLD)	
52	4-969-848-01	PANEL, FRONT (GOLD)	
52	4-969-848-12	PANEL, FRONT (BLACK)	
53	4-969-842-01	ESCUTCHEON (POWER) (GOLD)	
53	4-969-842-11	ESCUTCHEON (POWER) (BLACK)	
54	4-935-939-21	ESCUTCHEON, KNOB (GOLD)	
54	4-935-939-31	ESCUTCHEON, KNOB (BLACK)	
55	4-941-214-01	INDICATOR	
* 56	4-969-847-01	GUIDE (BUTTON DIA. 4)	
57	4-969-846-01	BUTTON (DIA. 4) (GOLD)	
57	4-969-846-12	BUTTON (DIA. 4) (BLACK)	
* 58	4-969-844-01	BASE (R), PANEL (GOLD)	
58	4-969-844-12	BASE (R), PANEL (BLACK)	
* 59	4-969-845-01	BASE (L), PANEL (GOLD)	
59	4-969-845-12	BASE (L), PANEL (BLACK)	
60	X-4945-318-1	BUTTON BLOCK (FF) ASSY (GOLD)	
60	X-4945-727-1	BUTTON BLOCK (FF) ASSY (BLACK)	
61	X-4945-319-1	BUTTON BLOCK (AMS) ASSY (GOLD)	
61	X-4945-728-1	BUTTON BLOCK (AMS) ASSY (BLACK)	
* 62	1-654-314-11	(L) KEY BOARD	
63	4-951-620-01	SCREW (2.6X8), +BVTP	
64	4-969-818-01	PACKING	
65	4-969-819-11	RETAINER (PACKING)	
66	X-4945-317-1	BUTTON BLOCK (PLAY) ASSY (GOLD)	
66	X-4945-726-1	BUTTON BLOCK (PLAY) ASSY (BLACK)	
* 67	4-923-532-41	SPACER, LED	
* 68	A-4673-304-A	(R) KEY BOARD, COMPLETE	
* 69	4-923-532-21	SPACER, LED	
* 70	4-972-442-01	SPACER (BUTTON REPULSION)	

6-3. CHASSIS SECTION 1

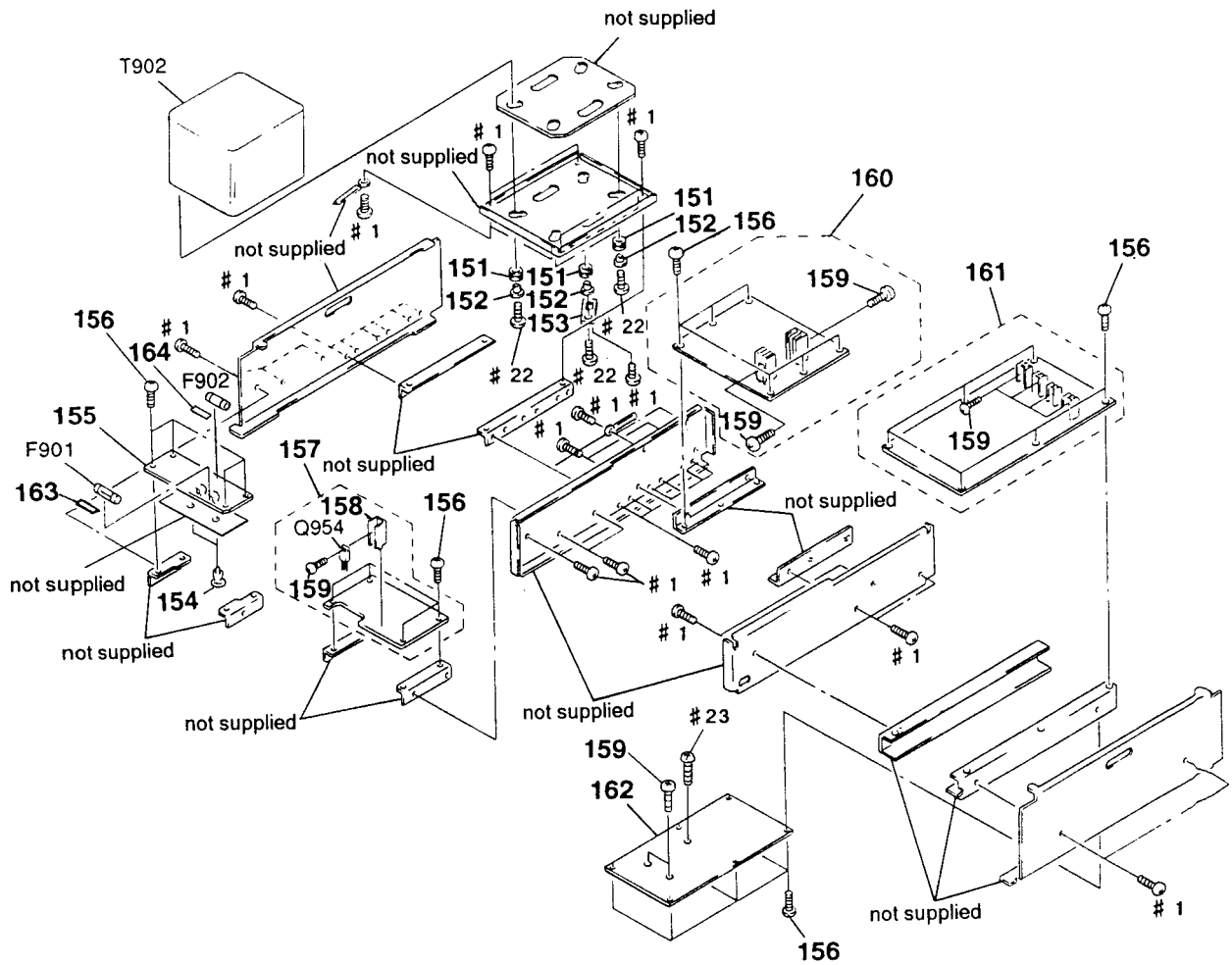


The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une piéce portant le numéro spécifié.

Ref. No.	Part No.	Description	Remark
* 101	1-654-315-11	HEADPHONE BOARD	
* 102	4-969-866-01	BRACKET (POWER SW)	
103	X-4934-014-1	KNOB (POWER) ASSY (BLACK)	
103	X-4941-629-1	KNOB (POWER) ASSY (GOLD)	
* 104	4-888-798-11	BUSHING, RUBBER	
* 105	4-928-026-01	COLLAR (B)	
* 106	4-969-865-01	BRACKET (HP)	
107	4-972-195-01	KNOB, VOLUME (GOLD)	
107	4-972-195-11	KNOB, VOLUME (BLACK)	
108	3-701-505-00	SET SCREW, DOUBLE POINT 3X3	
109	4-929-074-01	SCREW (3X8)	
* 110	1-654-316-11	VR BOARD	
111	4-970-124-11	CUSHION (F50180S)	
112	4-970-487-01	FOOT (F50180S)	
* 113	1-654-312-11	COAX BOARD	
* 114	4-913-152-01	ESCUTCHEON, D/O	
* 115	1-654-311-11	OPT BOARD	
* 116	1-654-308-11	BALANCE SW BOARD	
* 117	1-654-309-11	BALANCE (L) BOARD	
* 118	1-654-310-11	BALANCE (R) BOARD	
* 119	1-654-305-11	VARIABLE BOARD	
* 120	1-654-304-11	FIX BOARD	
* 121	4-969-861-11	PANEL, BACK (US)	

Ref. No.	Part No.	Description	Remark
* 121	4-969-861-21	PANEL, BACK (CND)	
* 121	4-969-861-31	PANEL, BACK (AEP)	
* 121	4-969-861-41	PANEL, BACK (G)	
⚠122	1-690-958-11	CORD, POWER (US, CND)	
123	1-563-030-11	CONNECTOR (RECEPTACLE) 3P	
* 124	4-923-873-01	BRACKET, CORD STOPPER	
125	3-703-685-21	SCREW (+BV 3X8)	
126	4-886-821-51	SCREW, CASE, (M3X14)	
* 127	3-703-244-00	BUSHING (2104), CORD (AEP, G)	
127	4-916-783-01	BUSHING, CORD (US, CND)	
128	4-971-099-01	WASHER (P)	
129	4-972-196-01	ESCUTCHEON	
⚠130	1-558-568-21	CORD, POWER (AEP, G)	
J710	1-568-519-31	JACK, LARGE TYPE (PHONES) (BLACK)	
J710	1-568-519-61	JACK, LARGE TYPE (PHONES) (GOLD)	
J901	1-568-918-41	JACK, PIN 1P (FIXED OUT L)	
J902	1-568-918-31	JACK, PIN 1P (FIXED OUT R)	
J903	1-568-918-41	JACK, PIN 1P (VARIABLE OUT L)	
J904	1-568-918-31	JACK, PIN 1P (VARIABLE OUT R)	
RV751	1-241-792-11	RES, VAR, CARBON 20K/20K (LINE OUT/PHONE LEVEL)	
⚠S901	1-571-250-41	SWITCH, PUSH (AC POWER) (1 KEY)	

6-4. CHASSIS SECTION 2



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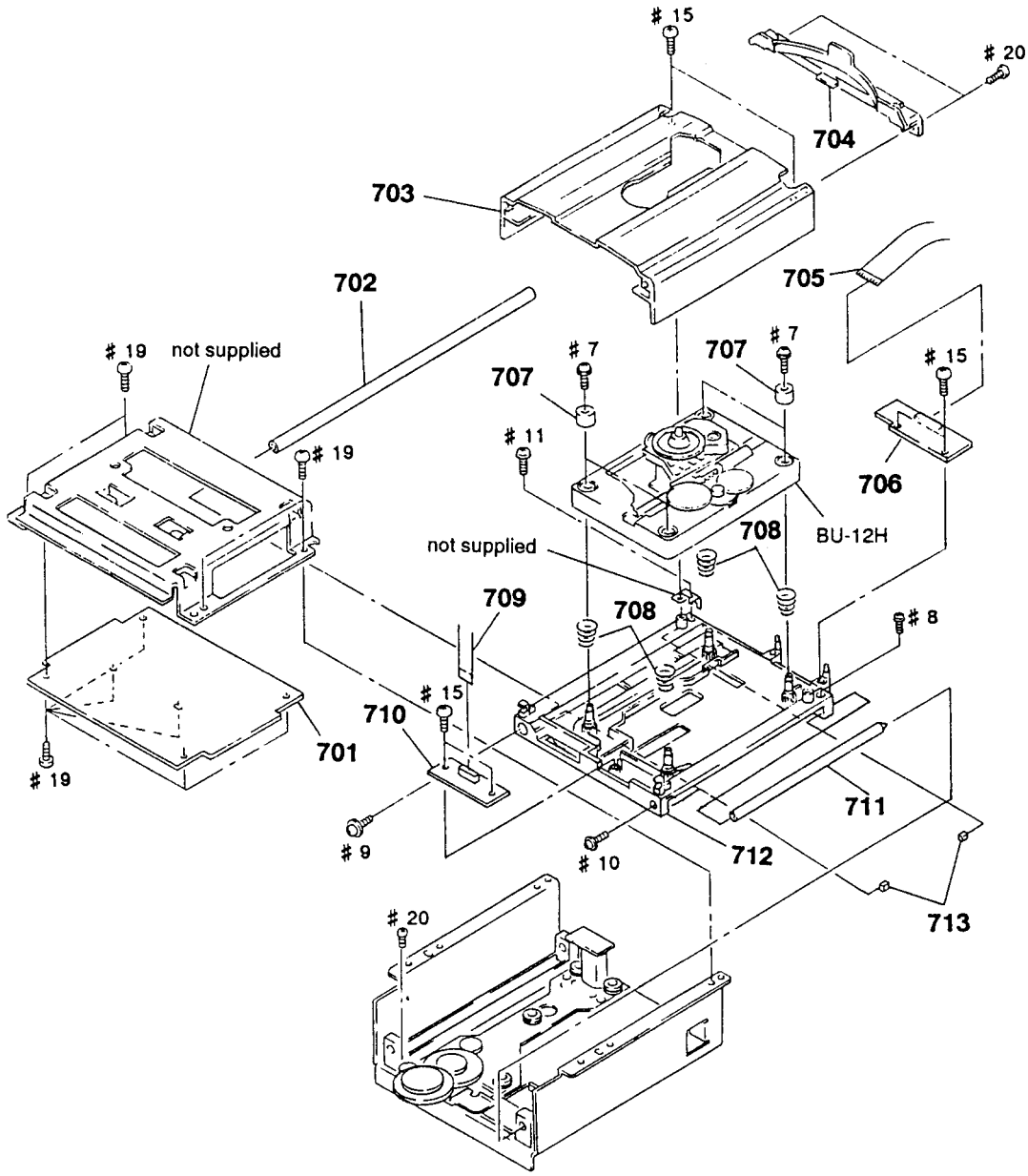
Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une piéce portant le numéro spécifié.

Ref. No.	Part No.	Description	Remark
* 151	4-888-798-00	BUSHING, RUBBER	
152	4-928-068-01	COLLAR (C)	
* 153	4-952-424-01	PLATE (TRANSFORMER), GROUND	
154	3-531-576-11	RIVET	
* 155	1-654-307-11	AC BOARD	
156	4-967-961-01	SCREW (3X8) (SPECIAL)	
* 157	A-4673-453-A	D POWER BOARD, COMPLETE	
* 158	4-941-237-01	HEAT SINK	
159	2-259-121-01	SCREW, TR	
* 160	A-4673-309-A	AU POWER BOARD, COMPLETE	
* 161	A-4673-303-A	AUDIO BOARD, COMPLETE (AEP, G)	

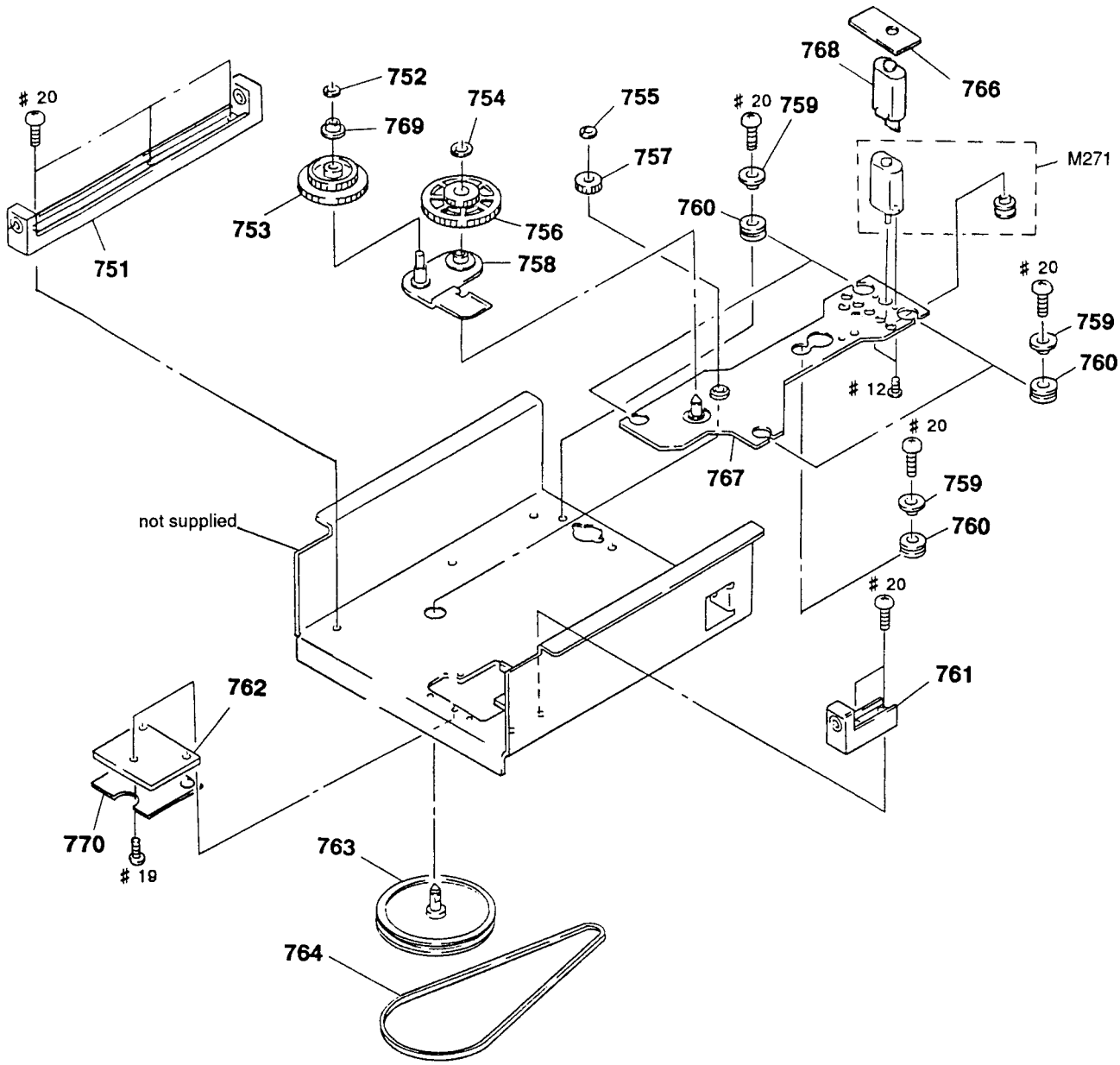
Ref. No.	Part No.	Description	Remark
* 161	A-4673-569-A	AUDIO BOARD, COMPLETE (US, CND)	
* 162	A-4673-477-A	AUDIO SUB BOARD, COMPLETE	
163	3-701-946-34	LABEL, FUSE RATING (US, CND)	
164	3-701-946-30	LABEL, FUSE RATING (US, CND)	
⚠F901	1-532-066-00	FUSE, TIME-LAG (0.4A 250V) (AEP, G)	
⚠F901	1-532-739-11	FUSE, GLASS TUBE (0.8A 125V) (US, CND)	
⚠F902	1-532-279-00	FUSE, TIME-LAG (0.5A 250V) (AEP, G)	
⚠F902	1-532-740-11	FUSE, GLASS TUBE (1A 125V) (US, CND)	
Q954	8-729-141-58	TRANSISTOR 2SC2275A-QP	
⚠T902	1-427-822-11	TRANSFORMER, POWER (US, CND)	
⚠T902	1-427-823-11	TRANSFORMER, POWER (AEP, G)	

6-5. CD MECHANISM SECTION-1 (CDM32HN-12H/CDM32HB-12H)



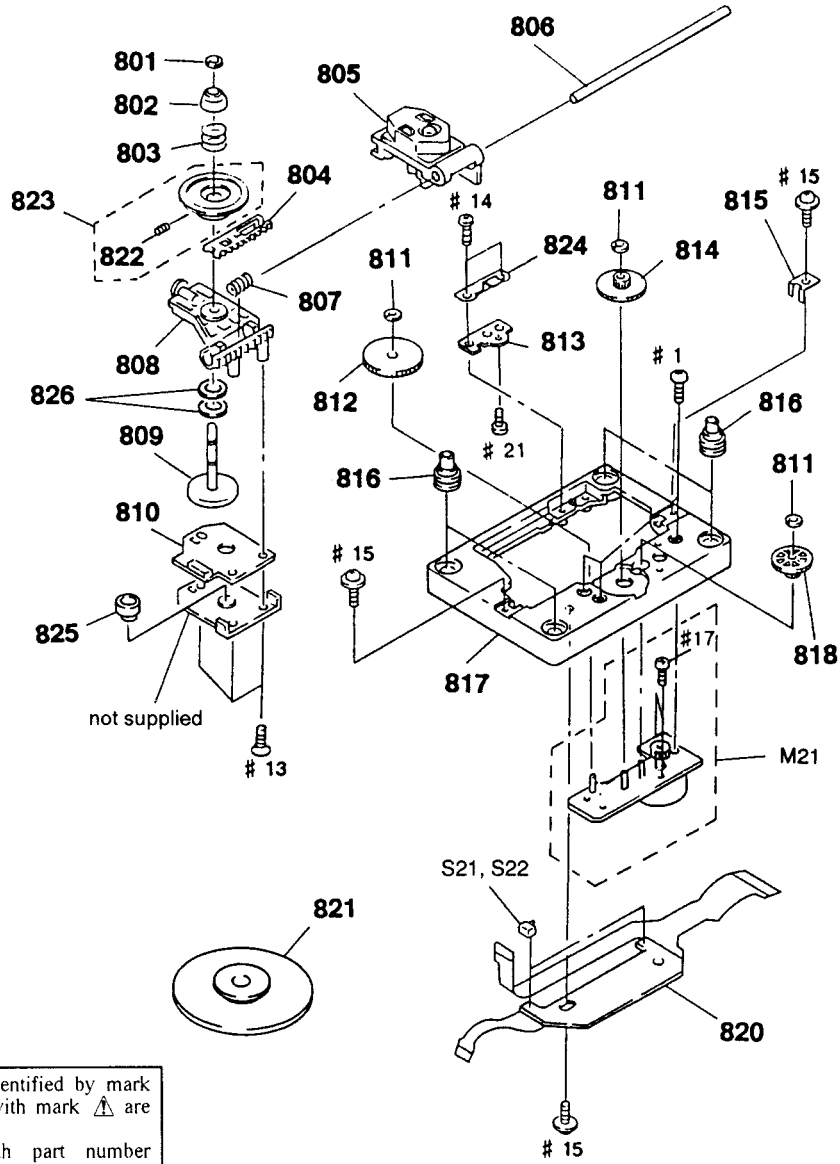
Ref. No.	Part No.	Description	Remark
* 701	A-4673-224-A	SERVO BOARD, COMPLETE	
* 702	4-968-903-01	SHAFT (MAIN)	
703	4-968-907-01	PANEL (DRAWER)	
704	4-971-000-01	COVER (CD) (BLACK)	
704	4-971-000-11	COVER (CD) (GOLD)	
705	1-769-110-11	WIRE (FLAT TYPE) (26 CORE)	
* 706	1-654-005-11	FLEX RELAY BOARD	
707	4-927-634-01	HOLDER (SP)	
708	4-948-375-01	SPRING (F), COIL	
709	1-769-109-11	WIRE (FLAT TYPE) (12 CORE)	
* 710	1-653-906-11	FL RELAY BOARD	
* 711	4-968-904-01	SHAFT (SUB)	
* 712	4-968-906-01	HOLDER, BU	
713	4-925-315-31	DAMPER	

6-6. CD MECHANISM SECTION-2 (CDM32HN-12H/CDM32HB-12H)



Ref. No.	Part No.	Description	Remark
* 751	4-968-901-01	BEARING (MAIN)	
752	3-325-697-31	WASHER	
753	4-968-900-01	GEAR (LAST)	
754	3-363-191-01	WASHER (BA)	
755	4-973-849-01	WASHER	
756	4-968-899-01	GEAR (MIDLE)	
757	4-968-898-01	GEAR (FIRST)	
758	X-4945-207-1	BRACKET (LAST) ASSY	
* 759	4-928-026-01	COLLAR (B)	
* 760	4-888-798-11	BUSHING, RUBBER	
* 761	4-968-902-01	BEARING (SUB)	
* 762	1-653-905-11	LOADING SW BOARD	
763	X-4945-209-1	PULLEY (FIRST) ASSY	
764	4-968-905-01	BELT (CDM)	
* 766	1-653-907-11	LOADING MOTOR BOARD	
* 767	X-4945-205-1	SHAFT ASSY	
768	4-971-894-01	DAMPER (MOTOR)	
* 769	4-970-999-01	ROLLER (J RACK)	
* 770	4-972-921-01	COVER (SW)	
M271	X-4945-565-1	MOTOR ASSY (LOADING)	

6-7. BASE UNIT SECTION (BU-12H)



The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.
Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une piéce portant le numéro spécifié.

Ref. No.	Part No.	Description	Remark
801	4-968-871-01	WASHER (SPINDLE)	
802	4-968-867-01	CAP, CENTERING	
803	4-968-869-01	SPRING (CENTERING), COMPRESSION	
804	4-968-870-01	RACK, SLIDE	
⚠805	8-848-368-11	OPTICAL PICK-UP BLOCK KSS-273A/J-N	
* 806	4-968-944-01	SHAFT, SLED	
807	4-968-880-01	SPRING (SLED), COMPRESSION	
808	X-4945-203-1	BASE ASSY, SLIDE	
809	X-4945-273-1	ROTOR ASSY	
810	A-4673-222-A	BSL BOARD, COMPLETE	
811	3-364-731-01	WASHER, POLY-SLIDER	
812	4-968-866-01	GEAR (D)	
813	4-968-916-01	BRACKET (OP BASE)	
814	4-968-865-01	GEAR (C)	
815	4-968-879-01	SPRING (OP), LEAF	
816	4-917-562-11	INSULATOR	
* 817	4-968-862-01	BASE, MECHANICAL	
818	4-968-864-01	GEAR (B)	
820	1-653-918-11	FLEXIBLE BOARD	
821	A-4660-862-A	STABILIZER ASSY	
822	4-971-266-01	SCREW (M2.6X4)	
823	A-4660-814-A	PULLEY ASSY, DISK	
824	4-970-924-01	SPRING (SKEW), LEAF	
825	4-943-342-01	BEARING	
826	3-701-444-11	WASHER, 6	
M21	X-4945-920-1	MOTOR ASSY, SLED	
S21	1-571-958-11	SWITCH, PUSH (1 KEY)	
S22	1-571-958-11	SWITCH, PUSH (1 KEY)	

SECTION 7
ELECTRICAL PARTS LIST

AC **AU POWER**

NOTE:

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une piéce portant le numéro spécifié.

When indicating parts by reference number, please include the board name.

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- RESISTORS
  All resistors are in ohms
  METAL: Metal-film resistor
  METAL OXIDE: Metal Oxide-film resistor
  F : nonflammable
- SEMICONDUCTORS
  In each case, u: μ , for example:
  uA...: μA..., uPA...: μPA..., uPB...: μPB..., uPC...: μPC..., uPD...: μPD...
- CAPACITORS
  uF : μF
- COILS
  uH : μH
- Abbreviation
  CND : Canadian model
  G : German model

Ref. No.	Part No.	Description			Remark
*	1-654-307-11	AC BOARD			
		********			
		< CAPACITOR >			
⚠C901	1-161-744-00	CERAMIC	0.01uF		400V
⚠C902	1-162-599-12	CERAMIC	0.0047uF	20%	400V
⚠C903	1-162-599-12	CERAMIC	0.0047uF	20%	400V
		< CONNECTOR >			
CN901	1-564-321-00	PIN, CONNECTOR 2P			
CN902	1-580-230-11	PIN, CONNECTOR (PC BOARD) 3P			
CN903	1-770-128-11	PIN, CONNECTOR 2P			
* CN904	1-564-321-21	PIN, CONNECTOR 2P			
		< FUSE >			
⚠F901	1-532-066-00	FUSE, TIME-LAG (0.4A 250V) (AEP, G)			
⚠F901	1-532-739-11	FUSE, GLASS TUBE (0.8A 250V) (US, CND)			
⚠F902	1-532-279-00	FUSE, TIME-LAG (0.5A 250V) (AEP, G)			
⚠F902	1-532-740-11	FUSE, GLASS TUBE (1A 125V) (US, CND)			
		< HALL ELEMENT >			
H1	1-533-183-11	HOLDER, FUSE			
H2	1-533-183-11	HOLDER, FUSE			
H3	1-533-183-11	HOLDER, FUSE			
H4	1-533-183-11	HOLDER, FUSE			
		< SWITCH >			
⚠S901	1-571-250-41	SWITCH, PUSH (AC POWER) (1 KEY)			
		< TRANSFORMER >			
⚠T901	1-421-915-11	COIL, LINE FILTER			
**********					
*	A-4673-309-A	AU POWER BOARD, COMPLETE			
		**********			
	2-259-121-01	SCREW, TR			
		< BUS BAR >			
BUS1	1-770-108-11	BAR, BUS 7P			

Ref. No.	Part No.	Description			Remark
		< CAPACITOR >			
C900	1-136-814-11	FILM	0.001uF	5%	100V
C912	1-125-709-11	ELECT	4700uF	20%	63V
C913	1-136-802-11	FILM	0.015uF	5%	63V
C914	1-136-802-11	FILM	0.015uF	5%	63V
C915	1-136-810-11	FILM	220PF	5%	100V
C916	1-136-810-11	FILM	220PF	5%	100V
C917	1-128-202-11	ELECT	220uF	20%	63V
C918	1-110-510-11	ELECT	1200uF	20%	63V
C919	1-107-597-11	MICA	22PF	5%	500V
C921	1-136-818-11	FILM	0.0047uF	5%	100V
C922	1-104-645-11	CERAMIC	1uF	20%	50V
C924	1-128-201-11	ELECT	100uF	20%	63V
C925	1-136-808-11	FILM	100PF	5%	100V
C932	1-125-709-11	ELECT	4700uF	20%	63V
C933	1-136-802-11	FILM	0.015uF	5%	63V
C934	1-136-802-11	FILM	0.015uF	5%	63V
C935	1-136-810-11	FILM	220PF	5%	100V
C936	1-136-810-11	FILM	220PF	5%	100V
C937	1-128-202-11	ELECT	220uF	20%	63V
C938	1-110-510-11	ELECT	1200uF	20%	63V
C939	1-107-597-11	MICA	22PF	5%	500V
C944	1-128-201-11	ELECT	100uF	20%	63V
C945	1-136-808-11	FILM	100PF	5%	100V
		< CONNECTOR >			
* CN910	1-573-262-21	PIN, CONNECTOR 3P			
* CN911	1-573-262-41	PIN, CONNECTOR 3P			
* CN913	1-573-265-11	PIN, CONNECTOR 6P			
* CN914	1-573-262-31	PIN, CONNECTOR 3P			
* CN915	1-573-261-11	PIN, CONNECTOR 2P			
		< DIODE >			
D910	8-719-210-29	DIODE	F10P10Q		
D911	8-719-210-29	DIODE	F10P10Q		
D912	8-719-210-29	DIODE	F10P10Q		
D913	8-719-210-29	DIODE	F10P10Q		
D914	8-719-988-53	DIODE	LTZ-MR19		
D915	8-719-114-36	DIODE	RD5.6JS-B1		
D934	8-719-988-53	DIODE	LTZ-MR19		
D935	8-719-114-36	DIODE	RD5.6JS-B1		

AU POWER | AUDIO

Ref. No.	Part No.	Description				Remark
		< IC >				
IC910	8-759-604-87	IC M5F7818L				
IC930	8-759-604-91	IC M5F7918L				
		< TRANSISTOR >				
Q910	8-729-322-40	TRANSISTOR 2SA1083E				
Q911	8-729-354-52	TRANSISTOR 2SC2545				
Q912	8-729-322-40	TRANSISTOR 2SA1083E				
Q913	8-729-354-52	TRANSISTOR 2SC2545				
Q914	8-729-202-72	TRANSISTOR 2SC3381				
Q915	8-729-202-72	TRANSISTOR 2SC3381				
Q916	8-729-354-52	TRANSISTOR 2SC2545				
Q917	8-729-354-52	TRANSISTOR 2SC2545				
Q918	8-729-141-10	TRANSISTOR 2SA985A-QP				
Q919	8-729-231-55	TRANSISTOR 2SC2878-AB				
Q920	8-729-307-65	TRANSISTOR 2SJ76				
Q930	8-729-354-52	TRANSISTOR 2SC2545				
Q931	8-729-354-52	TRANSISTOR 2SC2545				
Q932	8-729-354-52	TRANSISTOR 2SC2545				
Q933	8-729-322-40	TRANSISTOR 2SA1083E				
Q934	8-729-232-00	TRANSISTOR 2SA1349-GRBL				
Q935	8-729-232-00	TRANSISTOR 2SA1349-GRBL				
Q936	8-729-322-40	TRANSISTOR 2SA1083E				
Q937	8-729-322-40	TRANSISTOR 2SA1083E				
Q938	8-729-141-58	TRANSISTOR 2SC2275A-QP				
Q939	8-729-322-40	TRANSISTOR 2SA1083E				
Q940	8-729-321-35	TRANSISTOR 2SK213				
		< RESISTOR >				
⚠R900	1-219-021-11	FUSIBLE	91	5%	1/2W	
R911	1-259-585-11	CARBON	18K	1%	1/2W	
R912	1-259-539-11	CARBON	220	1%	1/2W	
R913	1-259-541-11	CARBON	270	1%	1/2W	
R914	1-259-571-11	CARBON	4.7K	1%	1/2W	
R915	1-259-557-11	CARBON	1.2K	1%	1/2W	
R916	1-259-519-11	CARBON	33	1%	1/2W	
R917	1-259-507-11	CARBON	10	1%	1/2W	
R918	1-259-507-11	CARBON	10	1%	1/2W	
R919	1-259-507-11	CARBON	10	1%	1/2W	
R920	1-259-507-11	CARBON	10	1%	1/2W	
R921	1-259-555-11	CARBON	1K	1%	1/2W	
R922	1-259-555-11	CARBON	1K	1%	1/2W	
R923	1-259-507-11	CARBON	10	1%	1/2W	
R924	1-249-799-11	CARBON	750	1%	1/2W	
R925	1-259-547-11	CARBON	470	1%	1/2W	
⚠R926	1-217-997-11	FUSIBLE	10	5%	1/2W	
⚠R927	1-217-989-11	FUSIBLE	4.7	5%	1/2W	
R931	1-259-585-11	CARBON	18K	1%	1/2W	
R932	1-259-539-11	CARBON	220	1%	1/2W	

Ref. No.	Part No.	Description				Remark
R933	1-259-541-11	CARBON	270	1%	1/2W	
R934	1-259-571-11	CARBON	4.7K	1%	1/2W	
R935	1-259-557-11	CARBON	1.2K	1%	1/2W	
R936	1-259-519-11	CARBON	33	1%	1/2W	
R937	1-259-507-11	CARBON	10	1%	1/2W	
R938	1-259-507-11	CARBON	10	1%	1/2W	
R939	1-259-507-11	CARBON	10	1%	1/2W	
R940	1-259-507-11	CARBON	10	1%	1/2W	
R941	1-259-555-11	CARBON	1K	1%	1/2W	
R942	1-259-555-11	CARBON	1K	1%	1/2W	
R943	1-259-507-11	CARBON	10	1%	1/2W	
R944	1-249-799-11	CARBON	750	1%	1/2W	
R945	1-259-547-11	CARBON	470	1%	1/2W	
⚠R946	1-217-997-11	FUSIBLE	10	5%	1/2W	
⚠R947	1-217-989-11	FUSIBLE	4.7	5%	1/2W	
**********						
*	A-4673-303-A	AUDIO BOARD, COMPLETE (AEP, G)				
		**********				
*	A-4673-569-A	AUDIO BOARD, COMPLETE (US, CND)				
		**********				
	2-259-121-01	SCREW, TR				
		< BUS BAR >				
BUS3	1-569-360-11	BAR, BUS				
		< CAPACITOR >				
C401	1-110-393-21	ELECT	100uF	20%	63V	
C402	1-137-306-11	FILM CHIP	0.1uF	5%	16V	
C403	1-137-306-11	FILM CHIP	0.1uF	5%	16V	
C406	1-130-973-00	FILM	0.022uF	5%	63V	
C407	1-130-892-00	FILM	0.015uF	5%	63V	
C408	1-130-892-00	FILM	0.015uF	5%	63V	
C411	1-136-817-91	FILM	0.0033uF	5%	100V	
C412	1-136-817-91	FILM	0.0033uF	5%	100V	
C413	1-136-252-00	FILM	0.0015uF	5%	100V	
C414	1-136-252-00	FILM	0.0015uF	5%	100V	
C416	1-136-816-11	FILM	0.0022uF	5%	100V	
C418	1-136-356-11	FILM	470PF	5%	100V	
C419	1-137-508-11	FILM	2.2uF	10%	63V	
C420	1-136-808-11	FILM	100PF	5%	100V	
C421	1-136-808-11	FILM	100PF	5%	100V	
C451	1-137-306-11	FILM CHIP	0.1uF	5%	16V	
C452	1-162-806-11	CERAMIC	0.1uF	10%	50V	
C461	1-136-802-11	FILM	0.015uF	5%	100V	
C462	1-109-857-11	ELECT	47uF	20%	63V	
C464	1-110-390-11	ELECT	22uF	20%	63V	
C465	1-136-802-11	FILM	0.015uF	5%	100V	
C466	1-110-390-11	ELECT	22uF	20%	63V	

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Ref. No.	Part No.	Description			Remark
C467	1-110-393-11	ELECT	100uF	20%	63V
C469	1-136-850-11	FILM	0.1uF	5%	63V
C470	1-136-850-11	FILM	0.1uF	5%	63V
C471	1-110-390-11	ELECT	22uF	20%	63V
C472	1-128-201-11	ELECT	100uF	20%	63V
C473	1-128-201-11	ELECT	100uF	20%	63V
C501	1-110-393-21	ELECT	100uF	20%	63V
C502	1-137-306-11	FILM CHIP	0.1uF	5%	16V
C503	1-137-306-11	FILM CHIP	0.1uF	5%	16V
C506	1-130-973-00	FILM	0.022uF	5%	63V
C507	1-130-892-00	FILM	0.015uF	5%	63V
C508	1-130-892-00	FILM	0.015uF	5%	63V
C511	1-136-817-91	FILM	0.0033uF	5%	100V
C512	1-136-817-91	FILM	0.0033uF	5%	100V
C513	1-136-252-00	FILM	0.0015uF	5%	100V
C514	1-136-252-00	FILM	0.0015uF	5%	100V
C516	1-136-816-11	FILM	0.0022uF	5%	100V
C518	1-136-356-11	FILM	470PF	5%	100V
C519	1-137-508-11	FILM	2.2uF	10%	63V
C520	1-136-808-11	FILM	100PF	5%	100V
C521	1-136-808-11	FILM	100PF	5%	100V
C551	1-137-306-11	FILM CHIP	0.1uF	5%	16V
C552	1-162-806-11	CERAMIC	0.1uF	10%	50V
C561	1-136-802-11	FILM	0.015uF	5%	100V
C562	1-109-857-11	ELECT	47uF	20%	63V
C564	1-110-390-11	ELECT	22uF	20%	63V
C565	1-136-802-11	FILM	0.015uF	5%	100V
C566	1-110-390-11	ELECT	22uF	20%	63V
C567	1-110-393-11	ELECT	100uF	20%	63V
C569	1-136-850-11	FILM	0.1uF	5%	63V
C570	1-136-850-11	FILM	0.1uF	5%	63V
C571	1-110-390-11	ELECT	22uF	20%	63V
C572	1-128-201-11	ELECT	100uF	20%	63V
C573	1-128-201-11	ELECT	100uF	20%	63V
C601	1-109-857-11	ELECT	47uF	20%	63V
C602	1-137-306-11	FILM CHIP	0.1uF	5%	16V
C604	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C605	1-137-306-11	FILM CHIP	0.1uF	5%	16V
C606	1-109-857-11	ELECT	47uF	20%	63V
C607	1-137-306-11	FILM CHIP	0.1uF	5%	16V
C631	1-110-393-11	ELECT	100uF	20%	63V
C632	1-137-306-11	FILM CHIP	0.1uF	5%	16V
C633	1-110-393-11	ELECT	100uF	20%	63V
C634	1-137-306-11	FILM CHIP	0.1uF	5%	16V
C635	1-137-506-11	FILM	0.47uF	10%	63V
C636	1-109-857-11	ELECT	47uF	20%	63V
C637	1-107-947-91	CERAMIC	10PF	5%	50V
C638	1-107-947-91	CERAMIC	10PF	5%	50V
C639	1-137-506-11	FILM	0.47uF	10%	63V
C651	1-109-857-11	ELECT	47uF	20%	63V
C652	1-137-506-11	FILM	0.47uF	10%	63V
C655	1-128-201-11	ELECT	100uF	20%	63V
C661	1-110-512-11	FILM	1uF	10%	50V
C662	1-110-512-11	FILM	1uF	10%	50V
C663	1-109-857-11	ELECT	47uF	20%	63V
C664	1-109-857-11	ELECT	47uF	20%	63V

< CONNECTOR >

* CN401	1-573-263-11	PIN, CONNECTOR 4P	
* CN402	1-573-262-41	PIN, CONNECTOR 3P	
* CN403	1-573-262-11	PIN, CONNECTOR 3P	
* CN501	1-573-263-31	PIN, CONNECTOR 4P	
* CN502	1-573-262-31	PIN, CONNECTOR 3P	
* CN503	1-573-262-21	PIN, CONNECTOR 3P	
* CN601	1-569-994-21	PIN, CONNECTOR (PC BOARD) 7P	
* CN602	1-569-993-11	PIN, CONNECTOR (PC BOARD) 6P	
* CN603	1-573-261-11	PIN, CONNECTOR 2P	
* CN605	1-573-261-41	PIN, CONNECTOR 2P	
* CN606	1-573-261-11	PIN, CONNECTOR 2P	
* CN607	1-573-262-31	PIN, CONNECTOR 3P	

< DIODE >

D401	8-719-987-63	DIODE	1N4148M
D402	8-719-210-21	DIODE	11EQS04
D405	8-719-987-63	DIODE	1N4148M
D451	8-719-987-63	DIODE	1N4148M
D501	8-719-987-63	DIODE	1N4148M
D502	8-719-210-21	DIODE	11EQS04
D505	8-719-987-63	DIODE	1N4148M
D551	8-719-987-63	DIODE	1N4148M
D651	8-719-114-30	DIODE	RD5.1JS-B2

< IC >

IC400	8-759-293-17	IC	CXA8042S
IC401	8-759-296-74	IC	AD712JR-REEL
IC402	8-759-296-74	IC	AD712JR-REEL
IC403	8-759-296-74	IC	AD712JR-REEL
IC404	8-759-998-79	IC	OPA27GP
IC405	8-759-604-90	IC	M5F7907L
IC406	8-759-604-86	IC	M5F7807L
IC500	8-759-293-17	IC	CXA8042S
IC501	8-759-296-74	IC	AD712JR-REEL
IC502	8-759-296-74	IC	AD712JR-REEL
IC503	8-759-296-74	IC	AD712JR-REEL
IC504	8-759-998-79	IC	OPA27GP
IC505	8-759-604-90	IC	M5F7907L
IC506	8-759-604-86	IC	M5F7807L
IC601	8-759-287-69	IC	CXD8504M
IC602	8-759-242-70	IC	TC7WU04F
IC603	8-759-044-10	IC	CXD2562Q

AUDIO

Ref.No.	Part No.	Description	Remark
IC604	8-759-242-70	IC TC7WU04F	
IC651	8-759-296-74	IC AD712JR-REEL	
		< COIL >	
L401	1-410-508-11	INDUCTOR 8.2uH	
L402	1-410-508-11	INDUCTOR 8.2uH	
L501	1-410-508-11	INDUCTOR 8.2uH	
L502	1-410-508-11	INDUCTOR 8.2uH	
L601	1-410-508-11	INDUCTOR 8.2uH	
L602	1-410-508-11	INDUCTOR 8.2uH	
L603	1-410-508-11	INDUCTOR 8.2uH	
		< MOUNT >	
MT1	4-924-264-01	TERMINAL, MOUNT	
MT2	4-924-264-01	TERMINAL, MOUNT	
MT3	4-924-264-01	TERMINAL, MOUNT	
		< PHOTO INTERUPTER >	
PH451	8-719-902-56	DIODE PC817	
PH551	8-719-902-56	DIODE PC817	
		< TRANSISTOR >	
Q413	8-729-232-69	TRANSISTOR 2SK208GR3	
Q414	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q415	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q416	8-729-232-69	TRANSISTOR 2SK208GR3	
Q417	8-729-321-35	TRANSISTOR 2SK213	
Q418	8-729-307-65	TRANSISTOR 2SJ76	
Q419	8-729-232-69	TRANSISTOR 2SK208GR3	
Q420	8-729-231-51	TRANSISTOR 2SC2878-AB	(US, CND)
Q421	8-729-807-51	TRANSISTOR 2SD1623-S	
Q422	8-729-807-51	TRANSISTOR 2SD1623-S	
Q451	8-729-207-58	TRANSISTOR RN1404	
Q513	8-729-232-69	TRANSISTOR 2SK208GR3	
Q514	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q515	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q516	8-729-232-69	TRANSISTOR 2SK208GR3	
Q517	8-729-321-35	TRANSISTOR 2SK213	
Q518	8-729-307-65	TRANSISTOR 2SJ76	
Q519	8-729-232-69	TRANSISTOR 2SK208GR3	
Q520	8-729-231-51	TRANSISTOR 2SC2878-AB	(US, CND)
Q521	8-729-807-51	TRANSISTOR 2SD1623-S	
Q522	8-729-807-51	TRANSISTOR 2SD1623-S	
Q551	8-729-207-58	TRANSISTOR RN1404	
Q601	8-729-207-67	TRANSISTOR RN2401	
Q651	8-729-232-69	TRANSISTOR 2SK208GR3	
Q652	8-729-104-18	TRANSISTOR 2SC3514	
		< RESISTOR >	
R406	1-259-983-11	CARBON MELF 100 2% 1/8W	
R407	1-259-983-11	CARBON MELF 100 2% 1/8W	
R408	1-259-983-11	CARBON MELF 100 2% 1/8W	
R409	1-259-983-11	CARBON MELF 100 2% 1/8W	
R410	1-259-543-11	CARBON 330 1% 1/2W	
R411	1-259-971-11	CARBON MELF 10 2% 1/8W	
R412	1-259-971-11	CARBON MELF 10 2% 1/8W	
R413	1-259-971-11	CARBON MELF 10 2% 1/8W	
R414	1-259-971-11	CARBON MELF 10 2% 1/8W	
R415	1-259-897-11	CARBON MELF 7.5 2% 1/8W	
R416	1-259-897-11	CARBON MELF 7.5 2% 1/8W	
R417	1-259-994-11	CARBON MELF 820 2% 1/8W	
R418	1-259-994-11	CARBON MELF 820 2% 1/8W	
R419	1-216-208-00	CARBON MELF 2.7K 2% 1/8W	
R420	1-216-208-00	CARBON MELF 2.7K 2% 1/8W	
R421	1-249-418-11	CARBON 1.2K 5% 1/4W F	
R422	1-249-418-11	CARBON 1.2K 5% 1/4W F	
R423	1-259-997-11	CARBON MELF 1.5K 2% 1/8W	
R424	1-259-928-11	CARBON MELF 3K 2% 1/8W	
R426	1-259-897-11	CARBON MELF 7.5 2% 1/8W	
R427	1-259-951-11	CARBON MELF 240K 2% 1/8W	
R428	1-259-929-11	CARBON MELF 3.6K 2% 1/8W	
R429	1-259-941-11	CARBON MELF 36K 2% 1/8W	
R430	1-259-983-11	CARBON MELF 100 2% 1/8W	
R431	1-259-995-11	CARBON MELF 1K 2% 1/8W	
R432	1-260-008-11	CARBON MELF 10K 2% 1/8W	
R433	1-260-004-11	CARBON MELF 4.7K 2% 1/8W	
R434	1-260-008-11	CARBON MELF 10K 2% 1/8W	
R435	1-260-004-11	CARBON MELF 4.7K 2% 1/8W	
R436	1-259-995-11	CARBON MELF 1K 2% 1/8W	
R437	1-259-983-11	CARBON MELF 100 2% 1/8W	
R438	1-259-983-11	CARBON MELF 100 2% 1/8W	
R439	1-259-983-11	CARBON MELF 100 2% 1/8W	
R440	1-259-519-11	CARBON 33 1% 1/2W	
R441	1-259-519-11	CARBON 33 1% 1/2W	
R442	1-259-531-11	CARBON 100 1% 1/2W	
R443	1-259-380-11	CARBON 10 5% 1/6W	(US, CND)
R444	1-259-500-11	CARBON 1M 5% 1/6W	
R445	1-259-951-11	CARBON MELF 240K 2% 1/8W	
R446	1-259-951-11	CARBON MELF 240K 2% 1/8W	
R447	1-259-995-11	CARBON MELF 1K 2% 1/8W	
R448	1-259-995-11	CARBON MELF 1K 2% 1/8W	
R451	1-216-047-00	METAL CHIP 820 5% 1/10W	
R452	1-260-003-11	CARBON MELF 3.9K 2% 1/8W	
R453	1-259-450-11	CARBON 8.2K 5% 1/6W	
R454	1-259-472-11	CARBON 68K 5% 1/6W	
R465	1-259-971-11	CARBON MELF 10 2% 1/8W	
R466	1-259-971-11	CARBON MELF 10 2% 1/8W	
R469	1-260-004-11	CARBON MELF 4.7K 2% 1/8W	
R470	1-260-004-11	CARBON MELF 4.7K 2% 1/8W	
R506	1-259-983-11	CARBON MELF 100 2% 1/8W	

Ref.No.	Part No.	Description				Remark
R507	1-259-983-11	CARBON MELF	100	2%	1/8W	
R508	1-259-983-11	CARBON MELF	100	2%	1/8W	
R509	1-259-983-11	CARBON MELF	100	2%	1/8W	
R510	1-259-543-11	CARBON	330	1%	1/2W	
R511	1-259-971-11	CARBON MELF	10	2%	1/8W	
R512	1-259-971-11	CARBON MELF	10	2%	1/8W	
R513	1-259-971-11	CARBON MELF	10	2%	1/8W	
R514	1-259-971-11	CARBON MELF	10	2%	1/8W	
R515	1-259-897-11	CARBON MELF	7.5	2%	1/8W	
R516	1-259-897-11	CARBON MELF	7.5	2%	1/8W	
R517	1-259-994-11	CARBON MELF	820	2%	1/8W	
R518	1-259-994-11	CARBON MELF	820	2%	1/8W	
R519	1-216-208-00	CARBON MELF	2.7K	2%	1/8W	
R520	1-216-208-00	CARBON MELF	2.7K	2%	1/8W	
R521	1-249-418-11	CARBON	1.2K	5%	1/4W F	
R522	1-249-418-11	CARBON	1.2K	5%	1/4W F	
R523	1-259-997-11	CARBON MELF	1.5K	2%	1/8W	
R524	1-259-928-11	CARBON MELF	3K	2%	1/8W	
R526	1-259-897-11	CARBON MELF	7.5	2%	1/8W	
R527	1-259-951-11	CARBON MELF	240K	2%	1/8W	
R528	1-259-929-11	CARBON MELF	3.6K	2%	1/8W	
R529	1-259-941-11	CARBON MELF	36K	2%	1/8W	
R530	1-259-983-11	CARBON MELF	100	2%	1/8W	
R531	1-259-995-11	CARBON MELF	1K	2%	1/8W	
R532	1-260-008-11	CARBON MELF	10K	2%	1/8W	
R533	1-260-004-11	CARBON MELF	4.7K	2%	1/8W	
R534	1-260-008-11	CARBON MELF	10K	2%	1/8W	
R535	1-260-004-11	CARBON MELF	4.7K	2%	1/8W	
R536	1-259-995-11	CARBON MELF	1K	2%	1/8W	
R537	1-259-983-11	CARBON MELF	100	2%	1/8W	
R538	1-259-983-11	CARBON MELF	100	2%	1/8W	
R539	1-259-983-11	CARBON MELF	100	2%	1/8W	
R540	1-259-519-11	CARBON	33	1%	1/2W	
R541	1-259-519-11	CARBON	33	1%	1/2W	
R542	1-259-531-11	CARBON	100	1%	1/2W	
R543	1-259-971-11	CARBON MELF	10	2%	1/8W	(US, CND)
R544	1-259-500-11	CARBON	1M	5%	1/6W	
R545	1-259-951-11	CARBON MELF	240K	2%	1/8W	
R546	1-259-951-11	CARBON MELF	240K	2%	1/8W	
R547	1-259-995-11	CARBON MELF	1K	2%	1/8W	
R548	1-259-995-11	CARBON MELF	1K	2%	1/8W	
R551	1-216-047-00	METAL CHIP	820	5%	1/10W	
R552	1-260-003-11	CARBON MELF	3.9K	2%	1/8W	
R553	1-259-450-11	CARBON	8.2K	5%	1/6W	
R554	1-259-472-11	CARBON	68K	5%	1/6W	
R565	1-259-971-11	CARBON MELF	10	2%	1/8W	
R566	1-259-971-11	CARBON MELF	10	2%	1/8W	
R569	1-260-004-11	CARBON MELF	4.7K	2%	1/8W	
R570	1-260-004-11	CARBON MELF	4.7K	2%	1/8W	
R600	1-216-049-91	METAL GLAZE	1K	5%	1/10W	

Ref.No.	Part No.	Description				Remark
R601	1-216-045-00	METAL CHIP	680	5%	1/10W	
R602	1-216-065-00	METAL CHIP	4.7K	5%	1/10W	
R603	1-216-049-91	METAL GLAZE	1K	5%	1/10W	
R604	1-216-049-91	METAL GLAZE	1K	5%	1/10W	
R605	1-216-049-91	METAL GLAZE	1K	5%	1/10W	
R606	1-216-049-91	METAL GLAZE	1K	5%	1/10W	
R607	1-216-049-91	METAL GLAZE	1K	5%	1/10W	
R608	1-216-049-91	METAL GLAZE	1K	5%	1/10W	
R609	1-216-049-91	METAL GLAZE	1K	5%	1/10W	
R610	1-216-037-00	METAL CHIP	330	5%	1/10W	
R611	1-216-069-00	METAL CHIP	6.8K	5%	1/10W	
R619	1-216-049-91	METAL GLAZE	1K	5%	1/10W	
R631	1-260-008-11	CARBON MELF	10K	2%	1/8W	
R651	1-259-983-11	CARBON MELF	100	2%	1/8W	
R652	1-259-991-11	CARBON MELF	470	2%	1/8W	
R653	1-259-999-11	CARBON MELF	2.2K	2%	1/8W	
R654	1-259-983-11	CARBON MELF	100	2%	1/8W	
R655	1-259-983-11	CARBON MELF	100	2%	1/8W	

< RELAY >

RY401	1-755-062-11	RELAY	
RY501	1-755-062-11	RELAY	

< THERMISTOR >

TH651	1-806-882-11	THERMISTOR, POSITIVE	

< VIBRATOR >

X601	1-577-685-11	FILTER, CRYSTAL (16MHz)	
X631	1-577-686-11	VIBRATOR, CRYSTAL (45MHz)	

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* A-4673-477-A AUDIO SUB BOARD, COMPLETE

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< CAPACITOR >

C460	1-136-233-11	FILM	0.0047uF	2%	100V
C461	1-136-228-11	FILM	0.0012uF	2%	100V
C462	1-137-507-11	FILM	1uF	10%	63V
C463	1-124-572-11	ELECT	100uF	20%	63V
C464	1-136-233-11	FILM	0.0047uF	2%	100V
C465	1-136-228-11	FILM	0.0012uF	2%	100V
C466	1-137-507-11	FILM	1uF	10%	63V
C467	1-124-572-11	ELECT	100uF	20%	63V
C468	1-107-036-00	MICA	68PF	5%	500V
C469	1-124-913-11	ELECT	470uF	20%	50V
C470	1-104-645-11	CERAMIC	1uF	20%	50V
C471	1-124-572-11	ELECT	100uF	20%	63V
C472	1-137-507-11	FILM	1uF	10%	63V
C560	1-136-233-11	FILM	0.0047uF	2%	100V
C561	1-136-228-11	FILM	0.0012uF	2%	100V

AUDIO SUB

Ref. No.	Part No.	Description				Remark
C562	1-137-507-11	FILM	1uF	10%	63V	
C563	1-124-572-11	ELECT	100uF	20%	63V	
C564	1-136-233-11	FILM	0.0047uF	2%	100V	
C565	1-136-228-11	FILM	0.0012uF	2%	100V	
C566	1-137-507-11	FILM	1uF	10%	63V	
C567	1-124-572-11	ELECT	100uF	20%	63V	
C568	1-107-036-00	MICA	68PF	5%	500V	
C569	1-124-913-11	ELECT	470uF	20%	50V	
C570	1-104-645-11	CERAMIC	1uF	20%	50V	
C571	1-124-572-11	ELECT	100uF	20%	63V	
C572	1-137-507-11	FILM	1uF	10%	63V	
C660	1-137-507-11	FILM	1uF	10%	63V	
C661	1-137-507-11	FILM	1uF	10%	63V	
C662	1-136-850-11	FILM	0.1uF	5%	63V	
C663	1-136-850-11	FILM	0.1uF	5%	63V	
C664	1-136-850-11	FILM	0.1uF	5%	63V	
C665	1-136-850-11	FILM	0.1uF	5%	63V	
C666	1-126-045-11	ELECT	2.2uF	20%	50V	
C667	1-126-696-11	ELECT	33uF	20%	35V	
C668	1-126-696-11	ELECT	33uF	20%	35V	
		< CONNECTOR >				
* CN461	1-573-263-11	PIN, CONNECTOR 4P				
* CN462	1-573-261-11	PIN, CONNECTOR 2P				
* CN463	1-573-261-11	PIN, CONNECTOR 2P				
* CN464	1-573-261-41	PIN, CONNECTOR 2P				
* CN562	1-573-263-21	PIN, CONNECTOR 4P				
* CN563	1-573-261-21	PIN, CONNECTOR 2P				
* CN564	1-573-261-21	PIN, CONNECTOR 2P				
* CN565	1-573-261-31	PIN, CONNECTOR 2P				
* CN660	1-573-265-11	PIN, CONNECTOR 6P				
* CN661	1-573-262-21	PIN, CONNECTOR 3P				
* CN662	1-573-262-41	PIN, CONNECTOR 3P				
* CN663	1-573-263-41	PIN, CONNECTOR 4P				
* CN664	1-573-265-41	PIN, CONNECTOR 6P				
		< DIODE >				
D661	8-719-987-63	DIODE	1N4148M			
D662	8-719-987-63	DIODE	1N4148M			
D663	8-719-987-63	DIODE	1N4148M			
D664	8-719-987-63	DIODE	1N4148M			
D666	8-719-114-30	DIODE	RD5.1JS-B2			
D667	8-719-933-74	DIODE	HZS12A2L			
		< IC >				
IC460	8-759-712-02	IC	NJM2114D			
IC461	8-759-712-02	IC	NJM2114D			
IC560	8-759-712-02	IC	NJM2114D			
IC561	8-759-712-02	IC	NJM2114D			

Ref. No.	Part No.	Description				Remark
		< PHOTO INTERUPTER >				
PH661	8-719-902-56	DIODE	PC817			
		< TRANSISTOR >				
Q460	8-729-224-61	TRANSISTOR	2SK246-Y			
Q461	8-729-809-29	TRANSISTOR	2SC4159-E			
Q462	8-729-809-26	TRANSISTOR	2SA1606-E			
Q463	8-729-354-52	TRANSISTOR	2SC2545			
Q560	8-729-224-61	TRANSISTOR	2SK246-Y			
Q561	8-729-809-29	TRANSISTOR	2SC4159-E			
Q562	8-729-809-26	TRANSISTOR	2SA1606-E			
Q563	8-729-354-52	TRANSISTOR	2SC2545			
Q661	8-729-900-80	TRANSISTOR	DTC114ES			
Q662	8-729-900-65	TRANSISTOR	DTA144ES			
Q663	8-729-900-65	TRANSISTOR	DTA144ES			
Q664	8-729-900-80	TRANSISTOR	DTC114ES			
Q665	8-729-900-80	TRANSISTOR	DTC114ES			
Q666	8-729-900-80	TRANSISTOR	DTC114ES			
		< RESISTOR >				
R460	1-249-926-11	CARBON	1.3K	5%	1/4W	
R461	1-247-711-11	CARBON	680	5%	1/4W	F
R462	1-247-891-00	CARBON	330K	5%	1/4W	
R463	1-247-702-11	CARBON	150	5%	1/4W	F
R464	1-249-926-11	CARBON	1.3K	5%	1/4W	
R465	1-247-711-11	CARBON	680	5%	1/4W	F
R466	1-247-891-00	CARBON	330K	5%	1/4W	
R467	1-247-702-11	CARBON	150	5%	1/4W	F
R468	1-249-926-11	CARBON	1.3K	5%	1/4W	
R469	1-249-926-11	CARBON	1.3K	5%	1/4W	
R470	1-247-891-00	CARBON	330K	5%	1/4W	
R471	1-249-586-11	CARBON	27K	5%	1/4W	
R472	1-247-721-11	CARBON	4.7K	5%	1/4W	F
R473	1-247-725-11	CARBON	10K	5%	1/4W	F
R474	1-247-704-11	CARBON	220	5%	1/4W	F
R476	1-247-704-11	CARBON	220	5%	1/4W	F
⚠R477	1-212-853-00	FUSIBLE	6.8	5%	1/4W	F
⚠R478	1-212-853-00	FUSIBLE	6.8	5%	1/4W	F
⚠R479	1-212-881-11	FUSIBLE	100	5%	1/4W	F
R480	1-249-465-11	CARBON	47K	5%	1/4W	
R481	1-249-586-11	CARBON	27K	5%	1/4W	
R482	1-247-891-00	CARBON	330K	5%	1/4W	
R483	1-247-700-11	CARBON	100	5%	1/4W	F
R484	1-247-700-11	CARBON	100	5%	1/4W	F
R485	1-247-713-11	CARBON	1K	5%	1/4W	F
R486	1-247-713-11	CARBON	1K	5%	1/4W	F
R560	1-249-926-11	CARBON	1.3K	5%	1/4W	
R561	1-247-711-11	CARBON	680	5%	1/4W	F
R562	1-247-891-00	CARBON	330K	5%	1/4W	
R563	1-247-702-11	CARBON	150	5%	1/4W	F

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

AUDIOSUB | BALANCE (L) | BALANCE (R) | BALANCE SW | BSL | COAX

Ref.No.	Part No.	Description				Remark
R564	1-249-926-11	CARBON	1.3K	5%	1/4W	
R565	1-247-711-11	CARBON	680	5%	1/4W	F
R566	1-247-891-00	CARBON	330K	5%	1/4W	
R567	1-247-702-11	CARBON	150	5%	1/4W	F
R568	1-249-926-11	CARBON	1.3K	5%	1/4W	
R569	1-249-926-11	CARBON	1.3K	5%	1/4W	
R570	1-247-891-00	CARBON	330K	5%	1/4W	
R571	1-249-586-11	CARBON	27K	5%	1/4W	
R572	1-247-721-11	CARBON	4.7K	5%	1/4W	F
R573	1-247-725-11	CARBON	10K	5%	1/4W	F
R574	1-247-704-11	CARBON	220	5%	1/4W	F
R576	1-247-704-11	CARBON	220	5%	1/4W	F
⚠R577	1-212-853-00	FUSIBLE	6.8	5%	1/4W	F
⚠R578	1-212-853-00	FUSIBLE	6.8	5%	1/4W	F
⚠R579	1-212-881-11	FUSIBLE	100	5%	1/4W	F
R580	1-249-465-11	CARBON	47K	5%	1/4W	
R581	1-249-586-11	CARBON	27K	5%	1/4W	
R582	1-247-891-00	CARBON	330K	5%	1/4W	
R583	1-247-700-11	CARBON	100	5%	1/4W	F
R584	1-247-700-11	CARBON	100	5%	1/4W	F
R585	1-247-713-11	CARBON	1K	5%	1/4W	F
R586	1-247-713-11	CARBON	1K	5%	1/4W	F
R661	1-259-432-11	CARBON	1.5K	5%	1/6W	
⚠R662	1-212-889-00	FUSIBLE	220	5%	1/4W	F
R663	1-259-468-11	CARBON	47K	5%	1/6W	
R664	1-259-460-11	CARBON	22K	5%	1/6W	
R665	1-259-468-11	CARBON	47K	5%	1/6W	
R666	1-259-460-11	CARBON	22K	5%	1/6W	
R667	1-259-468-11	CARBON	47K	5%	1/6W	
⚠R668	1-212-893-00	FUSIBLE	330	5%	1/4W	F
⚠R669	1-212-893-00	FUSIBLE	330	5%	1/4W	F
R670	1-259-380-11	CARBON	10	5%	1/6W	
		< RELAY >				
RY460	1-515-804-11	RELAY				
RY461	1-515-804-11	RELAY				
RY560	1-515-804-11	RELAY				
RY561	1-515-804-11	RELAY				
*	1-654-309-11	BALANCE (L) BOARD				
		< CONNECTOR >				
* CN480	1-573-263-11	PIN, CONNECTOR 4P				
CN905	1-563-030-11	CONNECTOR (RECEPTACLE) 3P(BALANCE OUT L)				
*	1-654-310-11	BALANCE (R) BOARD				
		< CONNECTOR >				
* CN580	1-573-263-21	PIN, CONNECTOR 4P				
CN906	1-563-030-11	CONNECTOR (RECEPTACLE) 3P(BALANCE OUT R)				
*	1-654-308-11	BALANCE SW BOARD				
		< CONNECTOR >				
* CN761	1-573-263-41	PIN, CONNECTOR 4P				
		< SWITCH >				
SW761	1-571-083-11	SWITCH, SLIDE (BALANCED OUT ON/OFF)				
	A-4673-222-A	BSL BOARD, COMPLETE				
		< HALL ELEMENT >				
H11	8-719-987-62	DIODE LT140SZ				
H12	8-719-987-62	DIODE LT140SZ				
		< RESISTOR >				
R11	1-216-049-91	METAL GLAZE	1K	5%	1/10W	
R12	1-216-049-91	METAL GLAZE	1K	5%	1/10W	
R13	1-216-295-91	CONDCTOR, CHIP (2012)				
R14	1-216-295-91	CONDCTOR, CHIP (2012)				
R15	1-216-295-91	CONDCTOR, CHIP (2012)				
*	1-654-312-11	COAX BOARD				
		< CAPACITOR >				
C701	1-136-850-11	FILM	0.1uF	5%	63V	
C702	1-104-645-11	CERAMIC	1uF	20%	50V	
C703	1-136-850-11	FILM	0.1uF	5%	63V	
		< CONNECTOR >				
* CN701	1-573-273-11	PIN, CONNECTOR 3P				
		< IC >				
IC701	8-759-917-18	IC SN74HCU04AN				

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COAX D POWER

Ref.No.	Part No.	Description			Remark
		< JACK >			
J701	1-507-567-71	JACK, PIN 1P (DIGITAL OUT COAXIAL)			
		< RESISTOR >			
R701	1-259-401-11	CARBON	75	5% 1/6W	
		< TRANSFORMER >			
T701	1-459-795-11	COIL (WITH CORE)			
**********					
*	A-4673-453-A	D POWER BOARD, COMPLETE			
		**********			
	2-259-121-01	SCREW, TR			
*	4-941-237-01	HEAT SINK			
		< BUS BAR >			
* BUS1	1-691-279-11	BUS BAR 5P			
		< CAPACITOR >			
C950	1-136-814-11	FILM	0.001uF	5% 100V	
C951	1-104-645-11	CERAMIC	1uF	20% 50V	
C952	1-136-802-11	FILM	0.015uF	5% 100V	
C953	1-128-217-11	ELECT	12000uF	20% 16V	
C954	1-128-217-11	ELECT	12000uF	20% 16V	
C955	1-128-201-11	ELECT	100uF	20% 63V	
C956	1-136-802-11	FILM	0.015uF	5% 100V	
C957	1-110-645-11	ELECT	10uF	20% 63V	
C958	1-128-201-11	ELECT	100uF	20% 63V	
C959	1-128-201-11	ELECT	100uF	20% 63V	
C960	1-128-201-11	ELECT	100uF	20% 63V	
C962	1-136-802-11	FILM	0.015uF	5% 100V	
C963	1-109-857-11	ELECT	47uF	20% 63V	
C964	1-110-645-11	ELECT	10uF	20% 63V	
C965	1-136-802-11	FILM	0.015uF	5% 100V	
C966	1-110-390-11	ELECT	22uF	20% 63V	
C967	1-136-802-11	FILM	0.015uF	5% 100V	
C971	1-136-802-11	FILM	0.015uF	5% 100V	
		< CONNECTOR >			
* CN953	1-573-264-11	PIN, CONNECTOR 5P			
* CN954	1-573-262-11	PIN, CONNECTOR 3P			
* CN955	1-573-261-31	PIN, CONNECTOR 2P			
* CN956	1-573-262-31	PIN, CONNECTOR 3P			
		< DIODE >			
D951	8-719-975-85	DIODE	ERB83-004		
D952	8-719-975-85	DIODE	ERB83-004		
D953	8-719-975-85	DIODE	ERB83-004		
D954	8-719-975-85	DIODE	ERB83-004		
D955	8-719-988-53	DIODE	LTZ-MR19		
D956	8-719-114-30	DIODE	RD5.1JS-B2		
D957	8-719-200-02	DIODE	10E2		
D958	8-719-114-86	DIODE	RD18JS-T2B1		
D959	8-719-114-26	DIODE	RD4.7JS-B2		
D960	8-719-210-21	DIODE	11EQS04		
		< IC >			
IC951	8-759-604-86	IC	M5F7807L		
IC952	8-759-604-90	IC	M5F7907L		
IC953	8-759-710-59	IC	NJM4580D-D		
IC954	8-759-962-08	IC	BA6208		
		< BASE POST >			
LP951	1-535-139-00	BASE POST 22MM (10MM PITCH) 2P			
LP952	1-535-139-00	BASE POST 22MM (10MM PITCH) 2P			
		< IC LINK >			
⚠PS951	1-532-685-00	LINK, IC 0.8A			
⚠PS952	1-532-685-00	LINK, IC 0.8A			
		< TRANSISTOR >			
Q951	8-729-224-62	TRANSISTOR	2SK246-GR		
Q952	8-729-322-40	TRANSISTOR	2SA1083E		
Q953	8-729-141-58	TRANSISTOR	2SC2275A-QP		
Q954	8-729-141-58	TRANSISTOR	2SC2275A-QP		
Q955	8-729-224-62	TRANSISTOR	2SK246-GR		
Q956	8-729-140-97	TRANSISTOR	2SB734-34		
Q957	8-729-140-97	TRANSISTOR	2SB734-34		
		< RESISTOR >			
R950	1-259-436-11	CARBON	2.2K	5% 1/6W	
⚠R951	1-219-017-11	FUSIBLE	62	5% 1/2W	
R952	1-259-421-11	CARBON	510	5% 1/6W	
R953	1-259-404-11	CARBON	100	5% 1/6W	
R954	1-259-412-11	CARBON	220	5% 1/6W	
R955	1-259-380-11	CARBON	10	5% 1/6W	
R956	1-259-428-11	CARBON	1K	5% 1/6W	
R957	1-259-380-11	CARBON	10	5% 1/6W	
R958	1-259-428-11	CARBON	1K	5% 1/6W	
R959	1-259-436-11	CARBON	2.2K	5% 1/6W	
R960	1-259-468-11	CARBON	47K	5% 1/6W	
R961	1-259-460-11	CARBON	22K	5% 1/6W	
R962	1-259-468-11	CARBON	47K	5% 1/6W	
**********					

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DISPLAY | FIX | FL RELAY | FLEX RELAY | FLEXIBLE | HEADPHONE | (L) KEY

Ref.No.	Part No.	Description				Remark
*	1-654-256-11	DISPLAY BOARD				
		**********				
*	4-969-510-01	HOLDER (FL)				
		< CAPACITOR >				
C801	1-163-038-91	CERAMIC CHIP	0.1uF			25V
C802	1-163-031-11	CERAMIC CHIP	0.01uF			50V
C803	1-163-031-11	CERAMIC CHIP	0.01uF			50V
C804	1-163-031-11	CERAMIC CHIP	0.01uF			50V
C805	1-163-031-11	CERAMIC CHIP	0.01uF			50V
C806	1-163-031-11	CERAMIC CHIP	0.01uF			50V
C807	1-163-031-11	CERAMIC CHIP	0.01uF			50V
		< FLUORESCENT INDICATOR >				
FLD801	1-517-357-11	INDICATOR TUBE, FLUORESCENT				
		< IC >				
IC801	8-759-324-36	IC	LC7570E			
IC802	8-759-324-36	IC	LC7570E			
IC803	8-759-324-36	IC	LC7570E			
IC804	8-749-923-80	IC	GP1U90XB			
		< TRANSISTOR >				
Q801	8-729-805-45	TRANSISTOR	2SC3395			
Q802	8-729-901-06	TRANSISTOR	DTA144EK			
		< RESISTOR >				
R801	1-216-029-00	METAL CHIP	150	5%	1/10W	
R802	1-216-089-00	METAL CHIP	47K	5%	1/10W	
R803	1-216-097-00	METAL CHIP	100K	5%	1/10W	
**********						
*	1-654-304-11	FIX BOARD				
		*********				
		< CONNECTOR >				
* CN751	1-573-263-11	PIN, CONNECTOR 4P				
* CN752	1-573-261-41	PIN, CONNECTOR 2P				
		< DIODE >				
D701	8-719-987-63	DIODE	1N4148M			
		< JACK >				
J901	1-568-918-41	JACK, PIN 1P (FIXED OUT L)				
J902	1-568-918-31	JACK, PIN 1P (FIXED OUT R)				
		< RELAY >				
RY701	1-755-062-11	RELAY				

Ref.No.	Part No.	Description				Remark
**********						
*	1-653-906-11	FL RELAY BOARD				
		**********				
		< CONNECTOR >				
CN291	1-568-794-11	SOCKET, CONNECTOR 12P				
* CN292	1-568-950-11	PIN, CONNECTOR 12P				
**********						
*	1-654-005-11	FLEX RELAY BOARD				
		**********				
		< CONNECTOR >				
CN191	1-580-473-11	SOCKET, CONNECTOR 26P				
**********						
	1-653-918-11	FLEXIBLE BOARD				
		**********				
		< MOTOR >				
M21	X-4945-920-1	MOTOR ASSY, SLED				
		< SWITCH >				
S21	1-571-958-11	SWITCH, PUSH (1 KEY)(LIMIT OUT)				
**********						
*	1-654-315-11	HEADPHONE BOARD				
		**********				
		< CAPACITOR >				
C490	1-162-294-31	CERAMIC	0.001uF	10%	50V	
C590	1-162-294-31	CERAMIC	0.001uF	10%	50V	
C710	1-164-159-11	CERAMIC	0.1uF		50V	
		< CONNECTOR >				
* CN710	1-573-274-11	PIN, CONNECTOR 4P				
		< JACK >				
J710	1-568-519-31	JACK, LARGE TYPE (BLACK)(PHONES)				
J710	1-568-519-61	JACK, LARGE TYPE (GOLD)(PHONES)				
**********						
*	1-654-314-11	(L) KEY BOARD				
		**********				
		< CONNECTOR >				
* CN804	1-564-704-11	PIN, CONNECTOR (SMALL TYPE) 2P				

(L) KEY | LOADING MOTOR | LOADING SW | OPT | (R) KEY

Ref.No.	Part No.	Description				Remark
		< RESISTOR >				
R847	1-259-424-11	CARBON	680	5%	1/6W	
R848	1-259-428-11	CARBON	1K	5%	1/6W	
R849	1-259-432-11	CARBON	1.5K	5%	1/6W	
		< SWITCH >				
S826	1-554-303-21	SWITCH, TACTILE (▶▶)				
S827	1-554-303-21	SWITCH, TACTILE (◀◀)				
S828	1-554-303-21	SWITCH, TACTILE (▷▷|)				
S829	1-554-303-21	SWITCH, TACTILE (|◁◁)				
**********						
*	1-653-907-11	LOADING MOTOR BOARD				
		**********				
		< CONNECTOR >				
CN272	1-506-469-11	PIN, CONNECTOR 4P				
		< MOTOR >				
M271	X-4945-565-1	MOTOR ASSY, LOADING				
**********						
*	1-653-905-11	LOADING SW BOARD				
		**********				
		< CONNECTOR >				
* CN281	1-568-942-11	PIN, CONNECTOR 4P				
		< RESISTOR >				
R281	1-249-415-11	CARBON	680	5%	1/4W F	
		< SWITCH >				
S281	1-692-193-11	SWITCH, PUSH (1 KEY)(IN SW)				
S282	1-692-193-11	SWITCH, PUSH (1 KEY)(OUT SW)				
S283	1-692-193-11	SWITCH, PUSH (1 KEY)(LD SW)				
**********						
*	1-654-311-11	OPT BOARD				
		*********				
		< CAPACITOR >				
C704	1-136-850-11	FILM	0.1uF	5%	63V	
C707	1-107-597-11	MICA	22PF	5%	500V	
		< IC >				
IC702	8-759-977-71	IC GP-1F31T				
**********						

Ref.No.	Part No.	Description				Remark
*	A-4673-304-A	(R) KEY BOARD, COMPLETE				
		**********				
*	4-923-532-21	SPACER, LED				
*	4-923-532-41	SPACER, LED				
		< CAPACITOR >				
C801	1-164-159-11	CERAMIC	0.1uF		50V	
C802	1-164-159-11	CERAMIC	0.1uF		50V	
		< CONNECTOR >				
* CN801	1-569-995-11	PIN, CONNECTOR (PC BOARD) 8P				
CN802	1-506-984-11	PIN, CONNECTOR (PC BOARD) 2P				
* CN803	1-564-704-11	PIN, CONNECTOR (SMALL TYPE) 2P				
		< DIODE >				
D801	8-719-051-83	DIODE MBG3371X (▶)				
D802	8-719-987-91	DIODE MAA3371X (▮▮)				
D803	8-719-987-91	DIODE MAA3371X (DIGITAL OUT)				
		< TRANSISTOR >				
Q801	8-729-900-89	TRANSISTOR DTC144ES				
Q802	8-729-900-89	TRANSISTOR DTC144ES				
Q803	8-729-900-89	TRANSISTOR DTC144ES				
		< RESISTOR >				
R801	1-259-424-11	CARBON	680	5%	1/6W	
R802	1-259-428-11	CARBON	1K	5%	1/6W	
R803	1-259-432-11	CARBON	1.5K	5%	1/6W	
R804	1-259-436-11	CARBON	2.2K	5%	1/6W	
R805	1-259-440-11	CARBON	3.3K	5%	1/6W	
R806	1-259-424-11	CARBON	680	5%	1/6W	
R807	1-259-428-11	CARBON	1K	5%	1/6W	
R808	1-259-432-11	CARBON	1.5K	5%	1/6W	
R809	1-259-436-11	CARBON	2.2K	5%	1/6W	
R810	1-259-440-11	CARBON	3.3K	5%	1/6W	
R812	1-259-424-11	CARBON	680	5%	1/6W	
R813	1-259-428-11	CARBON	1K	5%	1/6W	
R814	1-259-432-11	CARBON	1.5K	5%	1/6W	
R815	1-259-436-11	CARBON	2.2K	5%	1/6W	
R816	1-259-440-11	CARBON	3.3K	5%	1/6W	
R817	1-259-448-11	CARBON	6.8K	5%	1/6W	
R818	1-259-456-11	CARBON	15K	5%	1/6W	
R819	1-259-468-11	CARBON	47K	5%	1/6W	
R825	1-259-406-11	CARBON	120	5%	1/6W	
R826	1-259-414-11	CARBON	270	5%	1/6W	
R827	1-259-418-11	CARBON	390	5%	1/6W	
		< SWITCH >				
S801	1-554-303-21	SWITCH, TACTILE (1)				

Ref.No.	Part No.	Description			Remark
S802	1-554-303-21	SWITCH, TACTILE (2)			
S803	1-554-303-21	SWITCH, TACTILE (3)			
S804	1-554-303-21	SWITCH, TACTILE (4)			
S805	1-554-303-21	SWITCH, TACTILE (5)			
S806	1-554-303-21	SWITCH, TACTILE (DIGITAL OUTPUT)			
S807	1-554-303-21	SWITCH, TACTILE (6)			
S808	1-554-303-21	SWITCH, TACTILE (7)			
S809	1-554-303-21	SWITCH, TACTILE (8)			
S810	1-554-303-21	SWITCH, TACTILE (9)			
S811	1-554-303-21	SWITCH, TACTILE (10)			
S813	1-554-303-21	SWITCH, TACTILE (11)			
S814	1-554-303-21	SWITCH, TACTILE (12)			
S815	1-554-303-21	SWITCH, TACTILE (CHECK)			
S816	1-554-303-21	SWITCH, TACTILE (CLEAR)			
S817	1-554-303-21	SWITCH, TACTILE (>12)			
S818	1-554-303-21	SWITCH, TACTILE (PLAY MODE)			
S819	1-554-303-21	SWITCH, TACTILE (⏏ OPEN/CLOSE)			
S820	1-554-303-21	SWITCH, TACTILE (▶)			
S821	1-554-303-21	SWITCH, TACTILE (❚❚)			
S822	1-554-303-21	SWITCH, TACTILE (■)			

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* A-4673-224-A SERVO BOARD, COMPLETE

****

< CAPACITOR >

C93	1-124-995-11	ELECT	220uF	20%	10V
C94	1-124-995-11	ELECT	220uF	20%	10V
C95	1-124-995-11	ELECT	220uF	20%	10V
C96	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V
C97	1-126-162-11	ELECT	3.3uF	20%	50V
C101	1-126-177-11	ELECT	100uF	20%	10V
C102	1-126-177-11	ELECT	100uF	20%	10V
C103	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V
C104	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C105	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C106	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C107	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C108	1-163-145-00	CERAMIC CHIP	0.0015uF	5%	50V
C109	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C110	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
C111	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C112	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C113	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C114	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C115	1-164-346-11	CERAMIC CHIP	1uF		16V
C131	1-163-109-00	CERAMIC CHIP	47PF	5%	50V
C132	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V
C133	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V
C134	1-163-109-00	CERAMIC CHIP	47PF	5%	50V
C135	1-163-121-00	CERAMIC CHIP	150PF	5%	50V
C136	1-163-121-00	CERAMIC CHIP	150PF	5%	50V
C137	1-163-121-00	CERAMIC CHIP	150PF	5%	50V
C138	1-163-121-00	CERAMIC CHIP	150PF	5%	50V
C139	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C140	1-164-336-11	CERAMIC CHIP	0.33uF		25V
C141	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V
C142	1-163-127-00	CERAMIC CHIP	270PF	5%	50V
C143	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C144	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C145	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C161	1-163-145-00	CERAMIC CHIP	0.0015uF	5%	50V
C162	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
C163	1-164-492-11	CERAMIC CHIP	0.15uF	10%	16V
C171	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C172	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C173	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C174	1-164-336-11	CERAMIC CHIP	0.33uF		25V
C175	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C176	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C177	1-164-336-11	CERAMIC CHIP	0.33uF		25V
C178	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C201	1-125-622-11	CAP, DOUBLE LAYERS			0.10F
C202	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C203	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C204	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C251	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C252	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C261	1-126-177-11	ELECT	100uF	20%	10V

< CONNECTOR >

* CN91	1-573-278-11	PIN, CONNECTOR 8P	
CN101	1-568-795-11	SOCKET, CONNECTOR 12P	
CN102	1-580-473-11	SOCKET, CONNECTOR 26P	
CN103	1-580-781-11	PIN, CONNECTOR (PC BOARD)	7P
CN104	1-580-774-11	PIN, CONNECTOR (PC BOARD)	6P
CN105	1-580-771-11	PIN, CONNECTOR (PC BOARD)	3P
CN201	1-580-774-11	PIN, CONNECTOR (PC BOARD)	6P
CN202	1-580-775-11	PIN, CONNECTOR (PC BOARD)	8P
CN203	1-580-770-11	PIN, CONNECTOR (PC BOARD)	2P
CN204	1-580-770-11	PIN, CONNECTOR (PC BOARD)	2P
CN251	1-580-774-11	PIN, CONNECTOR (PC BOARD)	6P

< DIODE >

D201	8-719-914-44	DIODE	DAP202K
D202	8-719-976-96	DIODE	DTZ4.7C
D261	8-719-938-07	LED	GL480

SERVO

Ref.No.	Part No.	Description	Remark
		< IC >	
IC91	8-759-636-16	IC M51957AL	
IC101	8-752-351-94	IC CXD2515Q	
IC102	8-759-071-79	IC BA6297AFP	
IC103	8-759-100-96	IC uPC4558G2	
IC104	8-759-071-79	IC BA6297AFP	
IC105	8-759-071-79	IC BA6297AFP	
IC201	8-752-864-35	IC CXP84124-025Q	
IC202	8-759-289-95	IC LH5160TG	
IC203	8-759-822-09	IC LB1641	
IC261	8-749-010-61	IC IS471F	
		< TRANSISTOR >	
Q101	8-729-901-06	TRANSISTOR DTA144EK	
Q102	8-729-901-01	TRANSISTOR DTC144EK	
Q103	8-729-901-06	TRANSISTOR DTA144EK	
Q104	8-729-901-01	TRANSISTOR DTC144EK	
Q201	8-729-901-04	TRANSISTOR DTA114EK	
Q202	8-729-900-53	TRANSISTOR DTC114EK	
		< RESISTOR >	
R91	1-216-689-11	METAL CHIP 39K 0.5% 1/10W	
R92	1-216-077-00	METAL CHIP 15K 5% 1/10W	
R93	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
R101	1-216-077-00	METAL CHIP 15K 5% 1/10W	
R102	1-216-097-00	METAL CHIP 100K 5% 1/10W	
R103	1-216-077-00	METAL CHIP 15K 5% 1/10W	
R104	1-216-025-91	METAL GLAZE 100 5% 1/10W	
R105	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
R106	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
R107	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R108	1-216-121-00	METAL CHIP 1M 5% 1/10W	
R109	1-216-105-91	METAL GLAZE 220K 5% 1/10W	
R110	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R111	1-216-041-00	METAL CHIP 470 5% 1/10W	
R112	1-216-041-00	METAL CHIP 470 5% 1/10W	
R113	1-216-041-00	METAL CHIP 470 5% 1/10W	
R114	1-216-037-00	METAL CHIP 330 5% 1/10W	
R115	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R116	1-216-049-91	METAL GLAZE 1K 5% 1/10W	
R117	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R118	1-216-097-00	METAL CHIP 100K 5% 1/10W	
R119	1-216-085-00	METAL CHIP 33K 5% 1/10W	
R131	1-216-689-11	METAL CHIP 39K 0.5% 1/10W	
R132	1-216-689-11	METAL CHIP 39K 0.5% 1/10W	
R133	1-216-083-00	METAL CHIP 27K 5% 1/10W	
R134	1-216-083-00	METAL CHIP 27K 5% 1/10W	
R135	1-216-085-00	METAL CHIP 33K 5% 1/10W	
R136	1-216-085-00	METAL CHIP 33K 5% 1/10W	
R137	1-216-689-11	METAL CHIP 39K 0.5% 1/10W	

Ref.No.	Part No.	Description	Remark
R138	1-216-689-11	METAL CHIP 39K 0.5% 1/10W	
R139	1-216-083-00	METAL CHIP 27K 5% 1/10W	
R140	1-216-083-00	METAL CHIP 27K 5% 1/10W	
R141	1-216-085-00	METAL CHIP 33K 5% 1/10W	
R142	1-216-085-00	METAL CHIP 33K 5% 1/10W	
R143	1-216-093-00	METAL CHIP 68K 5% 1/10W	
R144	1-216-093-00	METAL CHIP 68K 5% 1/10W	
R145	1-216-085-00	METAL CHIP 33K 5% 1/10W	
R146	1-216-085-00	METAL CHIP 33K 5% 1/10W	
R147	1-216-308-00	METAL CHIP 4.7 5% 1/10W	
R148	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R149	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R150	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R151	1-216-097-00	METAL CHIP 100K 5% 1/10W	
R152	1-216-001-00	METAL CHIP 10 5% 1/10W	
R153	1-216-001-00	METAL CHIP 10 5% 1/10W	
R154	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R155	1-216-097-00	METAL CHIP 100K 5% 1/10W	
R161	1-216-075-00	METAL CHIP 12K 5% 1/10W	
R162	1-216-091-00	METAL CHIP 56K 5% 1/10W	
R163	1-216-093-00	METAL CHIP 68K 5% 1/10W	
R164	1-216-093-00	METAL CHIP 68K 5% 1/10W	
R165	1-216-093-00	METAL CHIP 68K 5% 1/10W	
R166	1-216-097-00	METAL CHIP 100K 5% 1/10W	
R167	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
R168	1-216-097-00	METAL CHIP 100K 5% 1/10W	
R171	1-216-001-00	METAL CHIP 10 5% 1/10W	
R172	1-216-105-91	METAL GLAZE 220K 5% 1/10W	
R173	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
R174	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
R175	1-216-105-91	METAL GLAZE 220K 5% 1/10W	
R176	1-216-308-00	METAL CHIP 4.7 5% 1/10W	
R179	1-216-001-00	METAL CHIP 10 5% 1/10W	
R180	1-216-105-91	METAL GLAZE 220K 5% 1/10W	
R181	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
R182	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
R183	1-216-105-91	METAL GLAZE 220K 5% 1/10W	
R184	1-216-308-00	METAL CHIP 4.7 5% 1/10W	
R201	1-216-013-00	METAL CHIP 33 5% 1/10W	
R202	1-216-069-00	METAL CHIP 6.8K 5% 1/10W	
R203	1-216-069-00	METAL CHIP 6.8K 5% 1/10W	
R204	1-216-069-00	METAL CHIP 6.8K 5% 1/10W	
R205	1-216-069-00	METAL CHIP 6.8K 5% 1/10W	
R206	1-216-069-00	METAL CHIP 6.8K 5% 1/10W	
R207	1-216-069-00	METAL CHIP 6.8K 5% 1/10W	
R208	1-216-069-00	METAL CHIP 6.8K 5% 1/10W	
R209	1-216-069-00	METAL CHIP 6.8K 5% 1/10W	
R210	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R212	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R213	1-216-073-00	METAL CHIP 10K 5% 1/10W	

Ref. No.	Part No.	Description	Remark
R214	1-216-097-00	METAL CHIP 100K 5% 1/10W	
R215	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R261	1-216-021-00	METAL CHIP 68 5% 1/10W	
		< VIBRATOR >	
X201	1-577-377-11	VIBRATOR, CERAMIC (10MHz)	
**********			
*	1-654-305-11	VARIABLE BOARD	
		**********	
		< CONNECTOR >	
* CN753	1-573-263-31	PIN, CONNECTOR 4P	
		< JACK >	
J903	1-568-918-41	JACK, PIN 1P (VARIABLE OUT L)	
J904	1-568-918-31	JACK, PIN 1P (VARIABLE OUT R)	
**********			
*	1-654-316-11	VR BOARD	
		********	
		< CAPACITOR >	
C761	1-164-159-11	CERAMIC 0.1uF 50V	
		< CONNECTOR >	
* CN490	1-573-274-11	PIN, CONNECTOR 4P	
* CN590	1-573-274-21	PIN, CONNECTOR 4P	
* CN790	1-573-273-11	PIN, CONNECTOR 3P	
		< VARIABLE RESISTOR >	
RV751	1-241-792-11	RES, VAR, CARBBON 20K/20K (LINE OUT/PHONE LEVEL)	
**********			
		MISCELLANEOUS	
		**********	
⚠122	1-558-568-21	CORD, POWER (AEP, G)	
⚠122	1-690-958-11	CORD, POWER (US, CND)	
123	1-563-030-11	CONNECTOR (RECEPTACLE) 3P	
705	1-769-110-11	WIRE (FLAT TYPE) (26 CORE)	
709	1-769-109-11	WIRE (FLAT TYPE) (12 CORE)	
⚠805	8-848-368-11	OPTICAL PICK-UP BLOCK KSS-273A/J-N	
⚠F901	1-532-066-00	FUSE, TIME-LAG (0.4A 250V) (AEP, G)	
⚠F901	1-532-739-11	FUSE, GLASS TUBE (0.8A 125V) (US, CND)	
⚠F902	1-532-279-00	FUSE, TIME-LAG (0.5A 250V) (AEP, G)	
⚠F902	1-532-740-11	FUSE, GLASS TUBE (1A 125V) (US, CND)	

Ref. No.	Part No.	Description	Remark
J901	1-568-918-41	JACK, PIN 1P (FIXED OUT L)	
J902	1-568-918-31	JACK, PIN 1P (FIXED OUT R)	
J903	1-568-918-41	JACK, PIN 1P (VARIABLE OUT L)	
J904	1-568-918-31	JACK, PIN 1P (VARIABLE OUT R)	
M21	X-4945-920-1	MOTOR ASSY, SLED	
M271	X-4945-565-1	MOTOR ASSY (LOADING)	
S21	1-571-958-11	SWITCH, PUSH (1 KEY) (LIMIT OUT)	
S22	1-571-958-11	SWITCH, PUSH (1 KEY) (LIMIT IN)	
⚠S901	1-571-250-41	SWITCH, PUSH (AC POWER) (1 KEY)	
⚠T902	1-427-822-11	TRANSFORMER, POWER (US, CND)	
⚠T902	1-427-823-11	TRANSFORMER, POWER (AEP, G)	
**********			
		ACCESSORIES & PACKING MATERIALS	
		**********	
	1-467-889-11	REMOTE COMMANDER (RM-D921)	
	1-590-861-11	CORD, CONNECTION (AUDIO 108cm)	
	3-707-584-21	COVER, BATTERY (for RM-D921)	
	3-759-341-11	MANUAL, INSTRUCTION (ENGLISH, FRENCH, SPANISH, SWEDISH) (US, CND, AEP)	
	3-759-341-41	MANUAL, INSTRUCTION (GERMAN, DUTCH, ITALIAN, PORTUGUESE) (AEP, G)	
*	4-971-334-01	CUSHION	
*	4-972-154-01	INDIVIDUAL CARTON	
	A-4660-862-A	STABILIZER ASSY	
**********			
		**********	
		HARDWARE LIST	
		**********	
#1	7-682-548-09	SCREW +BVTT 3X8 (S)	
#2	7-682-549-04	SCREW +BVTT 3X10 (S)	
#3	7-685-871-01	SCREW +BVTT 3X6 (S)	
#4	7-682-565-09	SCREW +B 4X16	
#5	7-621-775-10	SCREW +B 2.6X4	
#6	7-684-023-04	N 3, TYPE 2	
#7	7-685-134-19	SCREW +PTPWH 2.6X8 (TYPE2)	
#8	7-621-772-30	SCREW +B 2X6	
#9	7-682-903-01	SCREW +PWH 3X5	
#10	7-682-902-11	SCREW +PWH 2.6X5	
#11	7-621-775-50	SCREW +B 2.6X10	
#12	7-628-253-00	SCREW +PS 2X4	
#13	7-685-246-14	SCREW +KTP 3X8 TYPE2 NON-SLIT	
#14	7-685-534-19	SCREW +BTP 2.6X8 TYPE2 N-S	
#15	7-685-646-79	SCREW, TAPPING	
#16	7-682-548-04	SCREW +BVTT 3X8 (S)	
#17	7-627-852-07	SCREW, PRECISION +P 1.7X2.5	
#18	7-685-246-19	SCREW +KTP 3X8 TYPE2 NON-SLIT (BLACK)..(BLACK)	

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description	Remark
#18	7-685-246-14	SCREW +KTP 3X8 TYPE2 NON-SLIT (SILVER).. (GOLD)	
#19	7-685-645-79	SCREW +BVTP 3X6 TYPE2 N-S	
#20	7-685-647-79	SCREW +P 3X10 TYPE2 NON-SLIT	
#21	7-627-852-58	SCREW, PRECISION +P 1.7X5 TYPE3	
#22	7-682-562-09	SCREW +B 4X10	
#23	7-682-148-15	SCREW, TR	

9-959-854-11

Sony Corporation
Consumer A&V Products Company
Home A&V Products Div.

English
95C090484-1
Printed in Japan
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Published by Home A&V Products Div.
Quality Engineering Dept.